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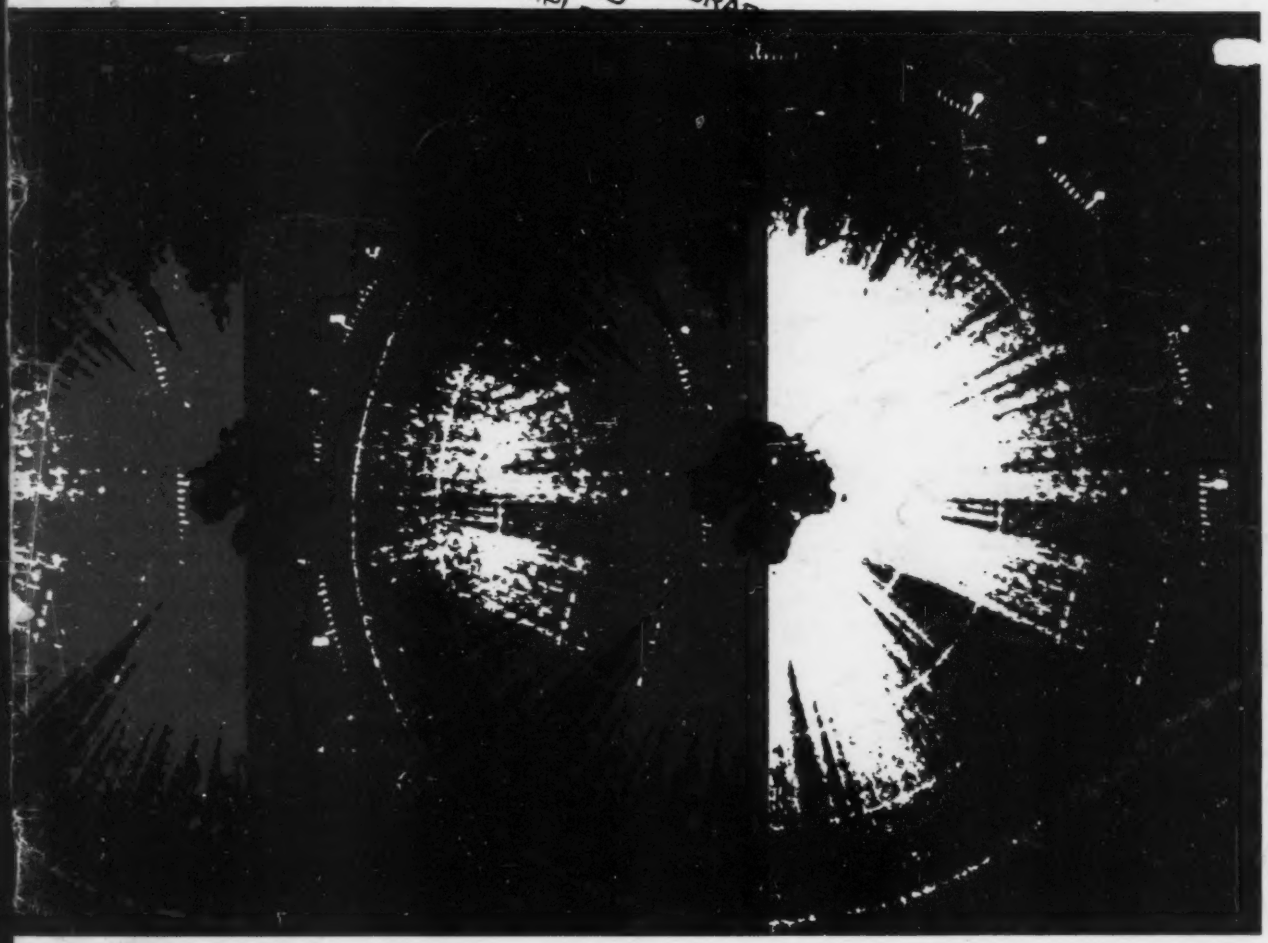

electronic warfare

Survive an Electronic Environment

Special Forces: A Strategic Asset

United States
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January—March 1982

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FROM THE COMMANDER

EW and YOU

by Brigadier General Richard W. Wilmot

In this, my first opportunity to address you through MI Magazine, let me say it is my distinct pleasure and privilege to serve as the Commander, USAICS. I am looking forward to a productive assignment and a time of unprecedented progress. The Intelligence School and the entire Branch stand on the brink of revolutionary change in the way we do intelligence business. All of us have an important role in these developments. It is a time for us to be aggressive and innovative as our new units, equipment, procedures, and techniques begin to appear on the scene.

The theme of this issue of Military Intelligence Magazine is Electronic Warfare (EW). The significance, power, and potential of EW have increased significantly over the years. It has become a potent combat tool for the commander—one which we must understand, harness, and use to our advantage. The Intelligence School is dedicated to perfecting our EW tools and techniques. However, you should recognize that you play an extremely critical role in support of the USAICS in this area. Oftentimes you, the operator in the field, have the real answer to the best procedures. Simply stated, we need your ideas! Your input can only lead to better concepts, doctrine, equipment, and training. Finally, I will leave the subject of EW with one last point—we need to practice EW! Only through practice will we develop the forward-looking and workable ideas we all seek.

The Airland Battle is doctrine. It is the dogma on which we shall fight our forces. The idea is to strike deep and at the appropriate time. The Airland Battle will require hard work, brilliance, and aggressiveness on the part of all S2's and G2's. I suggest you begin now to study our newest manuals on the Airland Battle. It is now our responsibility to find ways of supporting the Airland Battle doctrine with solid intelligence.

Each division and corps Combat Electronic Warfare Intelligence (CEWI) organization is distinctly different. Each is experiencing vastly different manning levels and equipment availability. Even the missions, while similar, are different in some respects. It is then incumbent on G2's and MI commanders to manage their assets in a manner which proves most effective for them. It is the experiences and good ideas from this challenge that we at the USAICS ask you to share with us. We want to serve as the focal point, capturing your innovations and telling the rest of the Army the best, most successful ways of supporting the requirement "to go to war on Monday morning." The school will be contacting you formally on this matter.

Intelligence Preparation of the Battlefield (IPB), like the Airland Battle, is doctrine. It is the key to analysis at the tactical level. It is a labor-intensive procedure which we must ultimately automate. If you don't know and understand IPB, you should begin NOW to get updated.

The Intelligence School is "gearing up" to become the premier school in TRADOC. If you are full of energy, ideas, and are ready to work hard, contact MILPERCEN NOW and demand an assignment at Ft. Huachuca, Ft. Devens, Pensacola, or Goodfellow.

intelligence is for the commander

1982 IEWSPR THEME

In October we will have a superb opportunity to review the quality of intelligence and electronic warfare support to be provided to the commander. This opportunity comes in the form of an IEW System Program Review (IEWSPR) to be held at Fort Huachuca, Arizona.

After a brief explanation of the SPR, I think you will agree that an airing of the IEW mission area can do us a lot of good. You will also understand why I need your support.

Between now and October, a number of general officer panels will be formed to study IEW support requirements for the Airland Battle from the standpoint of what we have to work with now, what we need next, and how we can get there from here. These panels will consist of tactical commanders as well as intelligence and other staff officers from the general officer ranks of the Army. There will also be representatives and input from national intelligence agencies and from the other services as well.

The results of the general officer panels will be presented to the Vice Chief of Staff of the Army during the October SPR. These presentations will form the basis of an action plan directing steps to be taken now and in the future to improve IEW support.

This is our chance to bring high level attention to bear on what we consider to be the most important IEW issues. We here at Fort Huachuca will be representing you when we put the issues on the table, and I want to insure that we have the highest priority items. With this in mind, a message requesting IEW issues for consideration of the SPR was sent to every major command, a number of staff agencies, national intelligence agencies, the other services, and most importantly, to every Army Corps and Division. I say, "most importantly" because I want the theme of this SPR to be "Intelligence is for Commander." This point was recently stressed by General Vessey when he said, "There can be no ambiguity between the commander and his G-2." Vessey was emphasizing the point that we in the intelligence business must not assume that we know what the commander needs; we must, instead, continually work the problem with the commander to insure there is no ambiguity between what we think is required and what the commander must have. Please make sure you submit suggestions for consideration. Because of time limitations, not all suggested issues will make the cut but all will be considered. In any case, those inputs not used will provide me, as the new commander of the U.S. Army Intelligence Center and School, an invaluable inventory of what must be done to insure our commanders have the intelligence capabilities they need to fight.

Military Intelligence Magazine will publish a special issue prior to the IEWSPR featuring articles on the intelligence challenge posed by the Airland Battle doctrine. Your articles will be most welcome and should be sent to MI Magazine, Box 569, Fort Huachuca, Arizona 85613 prior to 30 July 1982.

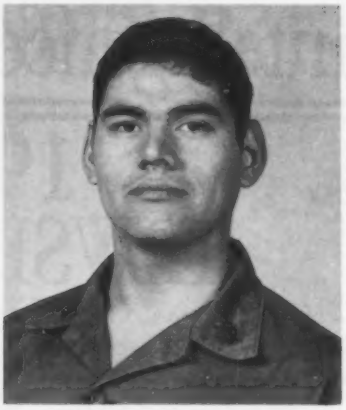
USAICS point of contact for the IEWSPR is Col. John F. Phelps, AUTOVON 879-3162/3166.

INTELLIGENCE IS FOR THE COMMANDER

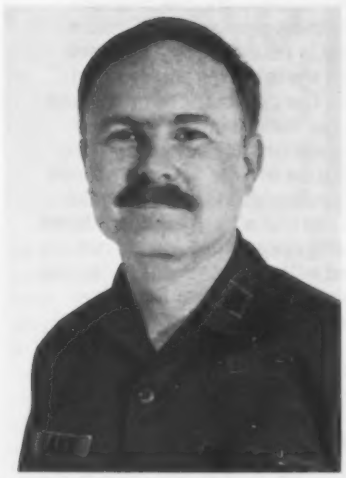
IEW 82 SPR

INTELLIGENCE ELECTRONIC WARFARE SYSTEM PROGRAM REVIEW

authors

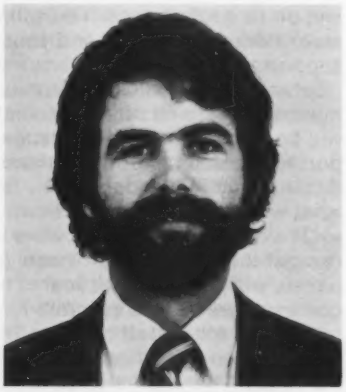


Capt. Al Leal is a 1977 graduate of the University of Texas at El Paso, where he majored in Political Science. A graduate of the Counterintelligence HUMINT and 05M Electronic Warfare Staff Officer Courses, Leal was primary action officer for OPFOR Branch, Collective Training Division, Directorate of Training Developments, USAICS. He now works for the Threat Branch, USAICS.



CW3, David E. Mann has served in a variety of CI, OPSEC, and ADP Security positions since entering MI from Armor in 1965. He is presently Special Agent in Charge, Bad Kreuznach, Germany, CI Field Office, 108th MI Bn (CEWI). CW3 Mann has a BS from the American University in Criminal Justice Administration with specialization in ADP and Communications Security Management. He is presently enrolled in the Boston University Master of Science in Computer Information Systems program. Military schooling includes the MIWOAC, WOSC, and other courses in the various intelligence disciplines from military and civilian agencies. Mann's hobby is amateur radio digital packet microwave communications using microcomputer interface. He has previously published technical articles in microcomputer and amateur radio publications.

Col. William G. Hanne is with the Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, Penn. He received a BS from USMA, an MS from the University of Illinois, and is a graduate of the USACGSC, DLIWC, the U.S. Army War College, and the U.S. Naval War College. He has served in USAREUR; XVIII Abn Corps; the Republic of Vietnam; on the DA Staff; as G2, 25th Infantry Division; and as a battalion commander in the School Brigade, U.S. Army Intelligence School, Fort Devens. He is co-author and principal editor of the ***Landscape Atlas of the USSR,*** and has had articles published in ***Military Review*** and ***Military Intelligence.***



Mr. John Angle is an Education Specialist in the Training and Design Division, USAISD, serving as principal advisor for research to the Chief of the Training Analysis Branch. He holds a BA in Psychology from Penn State University and is a PH.D candidate in Instructional Systems at Penn State. He has contributed to the development of an interservice Author Training Course for military authors of instructional material while on contract from Army Research Institute to Penn State's Center for Educational Research and Development. Angle has authored several professional papers dealing with instructional technology.

Capt. Robert B. Adolph, Jr. holds a BS in Sociology from the University of the State of New York. His military education includes the Tactical and Strategic Intelligence and Counterintelligence Officer Basic Courses; Airborne, Ranger, SCUBA, Jumpmaster, Special Forces, Russian and Arabic Language Schools and the Military Intelligence Officers Advance Course. He is presently pursuing a MA in Western European Area Studies at American University in Washington, D.C. Adolph has served as operations officer, 218th MID; executive officer, Hqs. & Opns., 525th MI Group; a Special Forces detachment commander and Battalion S2, 3d Battalion, 5th Special Forces Group, Fort Bragg, N.C.

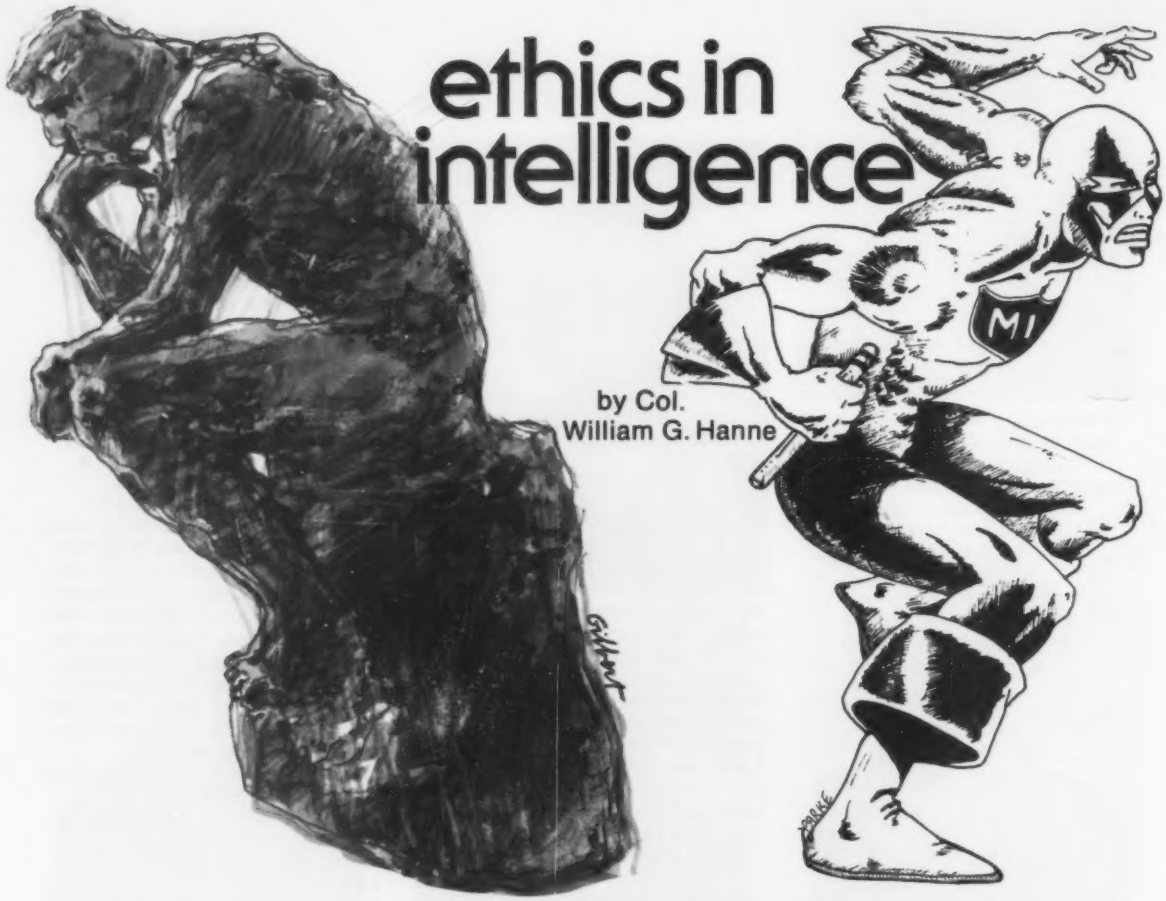
Maj. Wayne A. Silkett holds a BA in History from San Jose University, an MA in Political Science from Boston University and an MA in International Relations from the University of Southern California. He was graduated from the Infantry Officers Candidate School in 1968 and has since attended the Infantry Officers Advanced Course, the Foreign Area Officers Course, the Defense Language Institute (Russian), the U.S. Army Russian Institute, and the U.S. Army Command and General Staff College. Silkett has served in Vietnam and Berlin and is currently an intelligence analyst, Warsaw Pact Ground Forces, with the Defense Intelligence Agency. His articles have appeared in *Army, Infantry, Review of Soviet Ground Forces* and *Military Intelligence.*

Capt. Tom Adams holds a BA from Empire State College and an MA in international relations from Syracuse University. He is currently the threat officer for the U.S. Army Intelligence School, Fort Devens. Adams' military training includes the Infantry Officer Advanced Course; Ranger, Airborne and Special Forces courses; the Countersniper school, Tactical Strategic Intelligence Course, Psychological Operations, Internal Defense and Development, Arctic Warfare and others. He is the author of several articles on terrorism, counterterrorism and special operations.

Mr. Robert C. Van Kirk II is presently the Senior Technical Advisor on the staff of the recently established EW Division, Directorate of Training Developments, USAICS. He has served with the U.S. Army in the EW/cryptologic field for almost 15 years. Duty assignments included two European tours, principally at border sites and Field Station Augsburg; a three-year tour at the National Security Agency and, a two-year tour at the Defense Language Institute and Foreign Language Center in Monterey, Calif. He worked for the Kuras-Alterman Corporation for approximately one year supporting combat developers at USAICS on such systems as the ASAS and TCAC. Van Kirk became a government civilian employee in May 1980 and has been working on EW Training Development activities since that time. He has served as a senior project officer in the Opposing Force/EW Division and as the Chief of the EW Office until the EW Division was established in July 1981. Van Kirk has a BA in Russian from the University of Maryland and is certified as a Professional Russian Linguist with the National Security Agency.

Terry D. Bearce, a retired Army major, was formerly the commander of the Albuquerque Field Office, U.S. Army Intelligence and Security Command Counterintelligence Detachment, Defense Nuclear Agency. Bearce was commissioned in Military Intelligence after being graduated from the Infantry Officer Candidate School in 1966. He attended the Defense Language Institute (Japanese), the MI Officers Advanced Course and a number of other military schools. He was the founder and first editor of ***Military Intelligence.*** Bearce has served in intelligence and counterintelligence positions in the U.S., Korea, Vietnam and Japan. He holds a BA in Political Science (Asian Affairs) from Arizona State University. Currently working for MANTECH International Corp., Bearce is a senior engineer working on doctrinal literature.

ethics in intelligence



by Col. William G. Hanne

It has been said that the craft of intelligence is the world's second oldest profession but with far fewer morals than the first.

If religion concerns itself with faith, and philosophy with reason, and both are based on ethics and are in search of truth (whatever that might be), then the craft of intelligence has a foot in each camp and, contrary to the old saying paraphrased above, its practitioners must be above reproach.

What is the definition of "intelligence" as it is used in a military or political setting? Intelligence is simply the planning, the collection, the analysis, and the dissemination of information as related to forces, nations, or coalitions of powers other than one's own. Intelligence is far more than the popular James Bond type of "I-spy" activities; in fact, the agent in such an activity is more of a collector than an intelligence analyst. As a collector, the agent is given as a goal an item of information to obtain, and his actions and intent are collection oriented. The intelligence analyst is more concerned with the meaning, or lack of meaning, of collected information and its relationship to reality or to truth.

Neither armies nor nations should interact in the world arena without realizing that the interaction is based on awareness of reality as it is perceived to exist and directed towards a foreseeable objective. The craft of intelligence provides those who decide and who act with the elements upon which to decide and to act. Accordingly, the quality of the decision and the inherent quality of the action (but not necessarily the outcome of either) is often in direct proportion to the quality of the intelligence.

Frequently, the intelligence analyst finds himself in a philosophical quandary—out of all the pieces of evidence before him, what is Truth? The most convenient way to sidestep the problem is to translate Truth as Reality; thus the search becomes one for Reality, with all of its numerous facets, something less philosophical than Truth, perhaps, but almost as equally demanding.

In the search for Reality, it soon becomes apparent that the near-maximum attainment (on the part of the analyst) of Aristotle's moral and intellectual virtues is required (see endnote). The distinction between the agent and the analyst must be highlighted again—the popular James Bond and Scarlet Pimpernel were agents, or doers, not analysts. Their virtues had to be, by necessity, strongest in the realms of courage, perseverance, and ambition. Whereas, the virtues of the analyst need to be developed, cultivated, and learned, or the analyst is to be made aware of both moral and intellectual virtues. The analyst is the one who not only plans for the collection and who disseminates the developed product, but most importantly, analyzes the collected information in the search for reality and develops conclusions accordingly. (Frequently, the conclusion is that more information or information of a specific nature must be collected.)

In the realm of intelligence, the question of ethics is most frequently, and quite properly, raised in conjunction with the act of collection. As Secretary of State Stimson said when informed that the United States had the capability to break the German diplomatic code: "Gentlemen do not read other gentlemen's mail;" the act of collection was, and still is in some circles, regarded as unethical or beneath our national code of honor. However, the question of ethics is rarely raised during the consideration of the analysis and dissemination phases. It is in these two areas that the matter of integrity is most crucial—both personal and professional. Since integrity is crucial, the philosophical and religious underpinnings of the analyst are also crucial. The recognition of the concepts of virtue, of Kant's Categorical Imperative (act in such a way that your actions may at the same time serve as a universal law, applicable to all)—among others—bring into focus the intent of the analysis—is it self-serving or is it a true reflection of reality as it is perceived based on the information received to date? The technical knowledge of Aristotle, Kant, desHorst, and desCartes among others, is not as critical as is the awareness of the concepts. But the question of moderation, of virtue, of the primacy of intent are matters which should be in the subconscious of the analyst.

The surgeon operates, observes the tumor and removes it—the general commands, observes the enemy through the fog of combat, and commands. On the one hand, the tumor is perceived by all senses, can be isolated, and is acted upon, on the other hand, the fog of combat obscures the vision of the general and his senses are frequently deceived, if not led astray, by one's own preconceived ideas. While the commanding general of the division can physically count his troops (to verify the reports of his G-1), or he can observe the state of training of his troops (to check on the reports of his G-3), or he can count the number of cargo trucks (to ascertain the veracity of the reports of his G-4), he cannot check on the accuracy of the reports and the analysis of his G-2 without committing the division's resources to battle. Therefore, of all of the elements of force contained within the struggle, the element of intelligence is the most critical and the least verifiable, thus leading to the criticality of the integrity of the intelligence analyst. The analyst must act with objectivity, pursuing reality and judging or analyzing the acquired information without preconceived intent or self-serving interests. All of the most modern technical devices, the most rapid and accurate means of communication, and the most eyecatching methods of dissemination are worthless when manipulated or abused by an individual who lacks self-discipline or who is self-serving, or who in essence, is unethical.

This tendency to refrain from self-discipline or to be self-serving is inherent, to one degree or another, in all humans. The degree to which these tendencies can be controlled is dependent upon at least three factors—the awareness of the individual as to his proclivities, his desire to control them, and the exercise of self-restraint and self-discipline on a routine basis. Ignoring dictates of conscience or selected regulations just because one may not agree with them is one common characteristic of all of us, but it must be controlled so as to prevent an ever-increasing tendency to continue on in the same vein. One cannot be scrupulous, but one must be continually aware of the need for integrity and must make an effort to act accordingly. And, as with matters of philosophy, ethics, or knowledge, the more one knows, the more one is responsible for. Hence, the higher one is in the chain of analysis, or decisionmaking, the greater the need for an awareness of one's responsibility to act and to decide in an ethical manner.

The members of the intelligence community must be honest and candid, not only with their respective commanders, but with each other. The adage that "the charm of knowledge is lost once you share it" must be set aside. All involved must subjugate individual desires and ambitions to the successful accomplishment of the mission. To do this in today's competitive Army must call for integrity and self-discipline.

ENDNOTE

Aristotle, in his Nicomachean Ethics, outlined virtues towards which man should strive. Briefly, these virtues were separated into two categories—moral and intellectual. The characteristics of a moral virtue was best described as being a mean or a balance between two extremes, or vices. Moral virtues were also developed only through exposure and practice, whereas the intellectual virtues could be learned. In addition, an intellectual virtue increased as one moved toward the positive extreme. For example, courage, a moral virtue, was the balance between cowardice and foolhardiness and had to be exercised to be fully attained. Science, an intellectual virtue, could not only be learned but no harm was done nor could man err by trying to attain maximum knowledge of science. Whereas, by tending to either extreme of the moral virute of courage, man would err in his behavior. Moderation was of necessity in the moral virtues of courage, temperance, pride (self-respect), honor, good temper, and justice. The intellectual virtues of science, art, practical wisdom, intuitive reason, understanding, and judgment should be sought after with a direct sense or desire of maximum attainment. There are indeed applications of Aristotle's principles to the craft of intelligence and its analysts.

update on ATLP at USAISD

Although many hours of production time were allotted to Doctrinal Literature during the last two years, USAISD has managed to squeeze out several Training Literature publications.

Fielded for FY 80 and 81 were:

FM 34-85, Conversion of Warsaw Pact Grids to UTM Grids, 25 Sept. 81
TC 34-1, Tactical SIGINT/EW Equipment Reference Guide, 16 Apr. 80
TC 34-41, Planning Communications Jamming, 30 Mar. 81
TC 34-95, Radio Receiver Sets AN/TRQ-30 and AN/TRQ-32, 29 Feb. 80

This is a list of proposed Training Literature projects for the next several years. Many of these are in various stages of production and will be fielded as indicated.

FY 82

FM 34-13, MI-BN Leader's Handbook for Platoons and Teams
FM 34-85-1, MIDEAST GK Conversion

FY 83

FM 34-62, Signal Security
FM 34-87, Signals Intelligence
TC 34-60, AN/TRR-33
TC 34-61, AN/TRR-1A
TC 34-83, AN/TSQ-114, Trailblazer Operation
TC 34-84, AN/TLQ-17A, Countermeasures Set Operation
TC 34-90, AN/MLQ-34, TACJAM Operation
TC 34-98, Expendable Jammers
TC 34-99, AN/GLQ-3
TC 34-102, AN/TSQ-130

These publications are printed under contract to the United States Army Training Support Center and distributed by the United States Army Adjutant General Publications Center, Baltimore, MD. Requests for publications should be forwarded to Baltimore.

Current status of any of these publications and projected print dates may be determined by contacting Mr. Daniel H. Taylor, Jr., Chief, Training Literature Branch, U.S. Army Intelligence School, Fort Devens, AUTOVON 256-3271.

special forces: A STRATEGIC ASSET

by Capt. Robert B. Adolph Jr.

In June, 1952, the U.S. Army created a new unit capable of conducting unconventional warfare. It was designated the 10th Special Forces Group. Today there are three Special Forces Groups and their mission has largely expanded. This article will familiarize the reader with some of the peacetime and wartime missions, the general organization, and the employment of Special Forces today and in the near future.

The basic fighting unit of Special Forces is the A-team or operational detachment. It is a 12-man team consisting of two officers and 10 noncommissioned officers. The detachment commander and executive officer are normally combat arms officers although intelligence officers often serve in these positions. The enlisted men hold military occupational specialties in operations and intelligence, infantry, mortars, engineering, communications and medicine. They are all cross-trained in one other specialty, and all speak one foreign language.

There are five A-teams in a company, three companies in a battalion, and three battalions in a Special Forces Group. The Military Intelligence Company assigned to every group should be of particular interest to intelligence personnel. In this organization, there are positions for officer and enlisted order of battle, counterintelligence and signals intelligence personnel.

HALO stands for high altitude-low opening free fall parachuting. SCUBA/UWO stands for self-contained underwater breathing apparatus/underwater operations. All A-teams are static line parachute qualified; but selected teams are trained in HALO, SCUBA/UWO, or rough terrain parachute infiltration techniques.

The 5th, 7th and 10th are the three active duty Special Forces Groups. The 5th Group and two battalions of the 7th Group are located at Fort Bragg, N.C. The third battalion of the 7th Group is forward-deployed in Panama. Two battalions of the 10th Group are stationed at Fort Devens, Mass. with the first battalion forward-deployed in Bad Toelz, West Germany.

Forward-deployment is considered to be essential for improving the combat readiness of the Special Forces Groups in CONUS. For example, the soldiers of the first battalion of the 10th Special Forces Group are living in and near where they might have to deploy in war time; plus being able to practice their second language regularly.

Special Forces primary mission is the conduct of unconventional or guerrilla warfare (defined as warfare in denied areas or behind enemy lines by people indigenous to that country or region). Special Forces detachments fight with, assist, and support those indigenous forces.

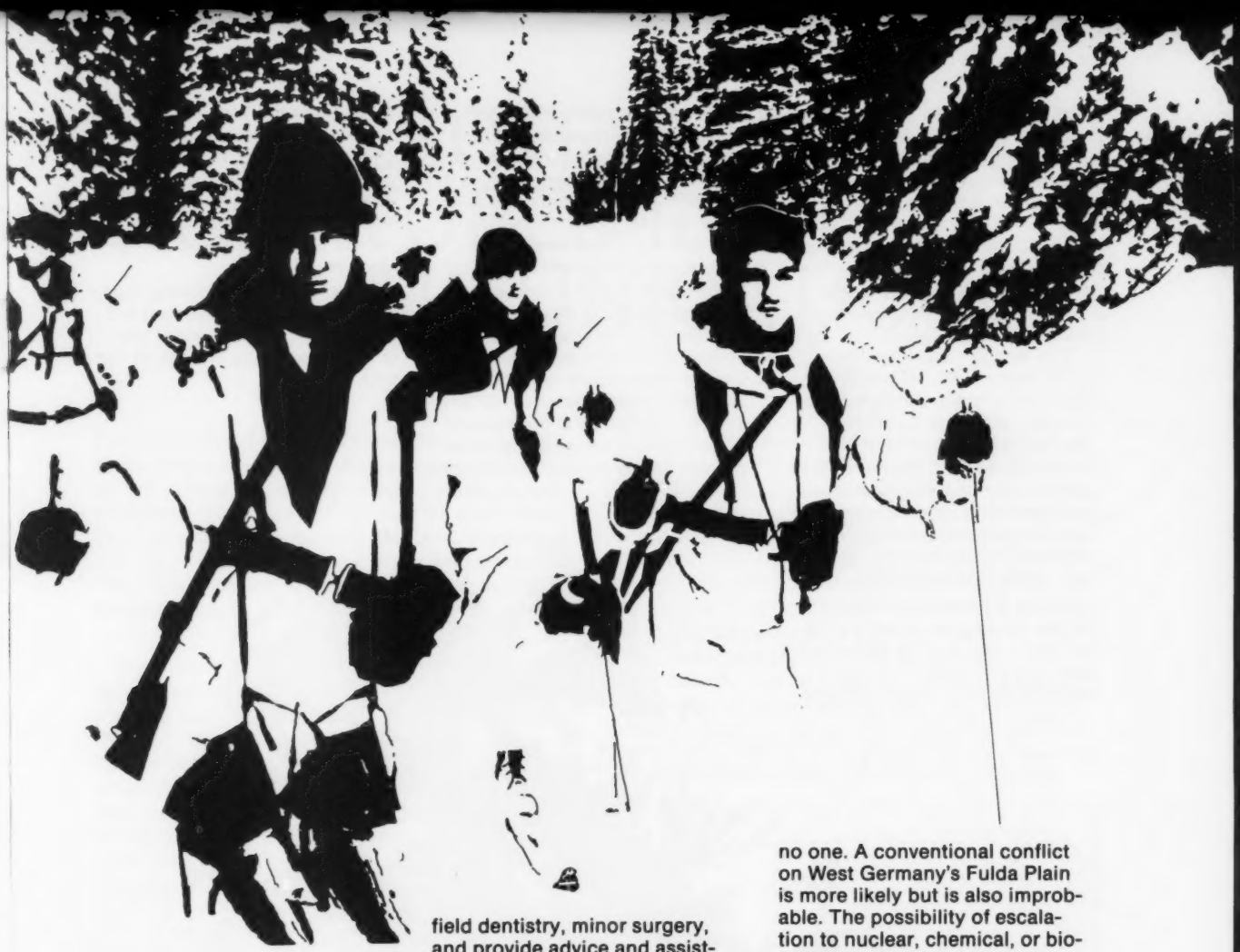
Special Forces are also used in a counterinsurgency role; supporting legal governments against guerrillas, as in El Salvador. Special Forces personnel are training Salvadoran government troops to fight the Marxist insurgents troubling that land today.

In wartime, Special Forces perform Direct Action missions requiring deep penetration behind enemy lines and special infiltration techniques such as HALO or SCUBA. These missions are designed to destroy key enemy facilities, or perform other missions of strategic importance.

Special Forces is a tool of American Foreign policy in the Third World through the use of Special Forces detachments as mobile training teams. The MTT travels to a host country at the request of that country's government to train portions of its military. Mobile training teams have performed missions in Asia, South America, the Middle East and Africa. The training objectives of a MTT are normally limited. The time taken to achieve objectives range from a few weeks to many months. Subjects taught include, but are not limited to, light and heavy weapons, demolitions, communications, medicine, and small unit to battalion size tactics. Special Forces are intensively trained in methods of instructing people from other societies and cultures. Since the inception of the MTT program, A-teams have established a record of successful mission completions.

Special Forces is a proven human intelligence collection asset. No matter how advanced U.S. technology becomes, there will always be a need for men to report on items of intelligence interest that cannot be collected through the electromagnetic spectrum or photo-intelligence. In Vietnam, A-teams infiltrated deep behind enemy lines to report on the movements of major enemy units and were highly effective. Unlike other collection assets, Special Forces can collect and send its intelligence regardless of terrain and weather considerations. Only Special Forces, with its long range AM/HF communications, has this unique capability. A-teams are thoroughly trained in accurate intelligence reporting procedures for this vital mission.

For the conventional commander, Special Forces is a special asset in its economy of force role. Special Forces detachments conducting acts of sabotage deep behind enemy lines force enemy commanders to pull more and more front line



troops away from the main battle areas and place them in rear area protection missions.

At one time in Vietnam, Special Forces maintained 80 camps and controlled more than 60,000 indigenous troops. The Civilian Irregular Defense Groups (CIDG), as they were called, were a potent weapon against the Viet Cong both as combat troops and HUMINT collectors. These troops consisted of the Hoa Hao, Cao Dai, Nungs, Kha and Meo ethnic minorities to name a few.

Special Forces can also act in a civil affairs role. A-team medics, highly-trained medical technicians capable of acting as physician substitutes, can perform diagnosis and treatment, field dentistry, minor surgery, and provide advice and assistance to indigenous personnel on preventive medicine and sanitation. Detachment engineers can build bridges and homes while also providing the technical expertise to assist farmers with agricultural irrigation projects. Medical and engineering projects of these types won Special Forces the respect and admiration of the people they supported in Vietnam, and other Southeast Asian countries.

A-teams can perform in jungle, desert, mountain, and Arctic operations. Special Forces is a truly multi-mission capable unit.

A number of military and political theorists believe that a full scale nuclear exchange between the Soviet Union and the United States is extremely unlikely. Destruction of that magnitude serves no one. A conventional conflict on West Germany's Fulda Plain is more likely but is also improbable. The possibility of escalation to nuclear, chemical, or biological weapons* is too great.

The global military struggle for world supremacy has begun, but it does not involve weapons of mass destruction or conventional armies. The upcoming decade could well be the decade of the guerrilla.

The Soviet Union has pledged to support what they term "wars of national liberation". Recent examples of Soviet support for movements of this type include Vietnam, Cambodia, Ethiopia, Angola, Nicaragua, and El Salvador. It is reasonable to assume that the Soviet Union will continue to support insurgencies worldwide as long as such support is in their national interest.

*The Soviet Union classifies these as weapons of mass destruction.

This is particularly true since they have enjoyed such great success through their assistance to these insurgencies. The Soviet union now possesses strategic military bases in Southeast Asia, the Horn of Africa, and possibly for the first time in Central America. All this is due to their support of Marxist insurgencies in those regions.

The Reagan administration considers the Soviet policy of support to "wars of national liberation" a clear and present danger to the security of the United States and its allies. The actions America can take to counter this threat are numerous. One possible countermeasure is the deployment of U.S. Army Special Forces.

Special Forces in peacetime serves not only as a ready combat force and training cadre but also acts as a symbol of our national resolve. By committing an A-team to assist a friendly nation experiencing an insurgency, we demonstrate our willingness to risk American lives to secure that friendship. This is a statement far more meaningful and profound than the simple sale of arms and technology.

President Reagan has already demonstrated his determination to attempt to halt the further spread of Marxist movements in Central America by committing Special Forces soldiers in El Salvador. This action is particularly meaningful. It could signal a partial end to the trauma Americans suffered in the post-Vietnam era, and demonstrates to the countries of the Third World America's willingness to support its allies. Special Forces can play a central role in this effort, and others like it in the upcoming decade.

The missions mentioned are by no means all-inclusive, but are considered to be some of the primary missions of Special Forces today.

ELECTROMAGNETIC SIGNATURES IN ARMY COMMUNICATIONS

by CW3 David E. Mann

Every communications device that transmits radio frequency energy has a fingerprint. We all know how effectively missing persons and criminals can be traced by the FBI when their fingerprints are compared. Battlefield emitters can also be traced through their fingerprints. The police will not locate radios in combat, the enemy will.

Electronic fingerprinting (also known as Advanced Identification Techniques) of RF devices is a recent addition to the art of locating and identifying an emitter. Most emitters common to an Army division can produce a unique signature. Depending upon the type of equipment, they can also produce a type of RF emission which is readily recognizable by an opposing force SIGINT specialist. Frequency Modulation radios are quite common to an infantry unit. What about radar systems, multiplex or multichannel emitters, and high bit-rate data transfer systems? Arriving soon at many units will be satellite terminals, with their unique and identity compromising frequency band of operation, emission characteristics, and fingerprint.

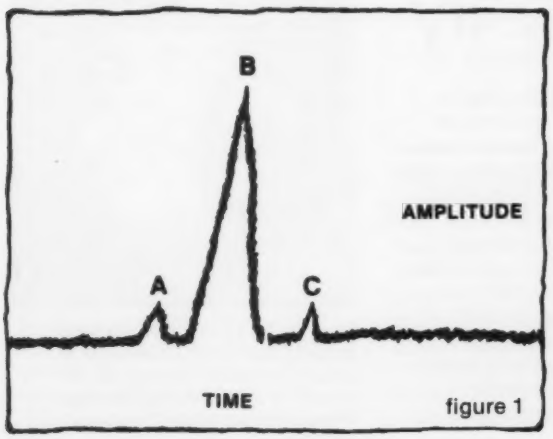


figure 1

A Radio Frequency Signature can be produced by the conversion of electronic energy into RF energy by the tuned circuits of a radio or other transmitter. Figure 1 shows a simplified drawing from the screen of a spectrum analyzer. Point A shows a slight burst of RF energy, and Point B follows Point A within a fraction of a millisecond. Point B is the main, or intended, transmission and represents in this case, the operator of an RT-524 pressing the mike button "just to see if the radio is working." Letter C is transient energy emitted when the internal circuitry of the radio was shut-off after the mike button was released. This is unwanted RF energy transmitted through the antenna.

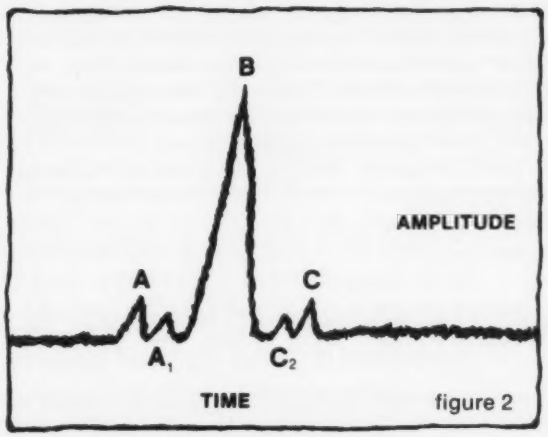


figure 2

Figure 2 shows the same illustration but with a different radio set. Notice A and C and compare with figure 1. Where the main or intended transmission pulse is shown, the characteristics of that signal are also different. This means, to the SIGINT interceptor, that the radio signal, both in transient energy and in RF identity are unique. Parameters are present in the emission identification which could be used to sort out radio equipment and impose a identity on each one intercepted.

A military unit using transmitting equipment, for example low-density issue, those signal characteristics could also be used to determine what type of unit or what function the unit performs. For example, examination of a published Table of Organization and Equipment for a military unit might show that it is authorized issue of a satellite terminal at the Brigade or Division headquarters. A trained HUMINT agent would be able to determine where the Brigade or Division tactical operations center was located by the single fact that the satellite transceiver antenna and van were present. Most communications gear designed for satellite use have a high-gain, circularly polarized antenna which is identified through IMINT or HUMINT. Appearance of a low power, burst-transmission device in the forward areas or behind opposing forces lines, indicates the existence of a Special Forces or Long Range Reconnaissance element. The burst-transmission of an AN/PSC-1 satellite uplink transceiver can be located by direction finding. A recent quote in a trade magazine indicated that a meteor scatter effect burst transmitter radio set for use by nuclear weapons delivery units will be fielded soon. The radio set uses packet digital transmisions which can be identified by SIGINT. Identification of such a system would be enough to identify a nuclear weapons capability in a specific area, since no other type of Army unit has (or would have) this type of emitter. The same analysis goes for Special Forces and other unconventional units using their specialized transceivers.

Traffic analysis (analysis of external message traffic characteristics) and direction finding (locating the approximate site of a transmitter's antenna) can be combined with the detected and analyzed signatures of emitters to produce a unit mission and identity with a high level of confidence. If all of these individual characteristics are collated and analyzed on a real-time basis, the threat to that unit becomes immediate. The RFS technique would be useful when the emitter is intercepted in garrison, and in a forward or maneuver area. For example, an emitter installed in an M1 Tank assigned to 3d Platoon, C Company, 2/68 Armor, is tested while in the motor pool. DF and RFS analysis is done and recorded for future reference. Emitter identity could be done when the tank is in the maneuver area. A deployed element of 2/68 Armor, will be reported to OPFOR analysts and another piece of valuable order of battle information is collected.

What are the OPSEC measures which will reduce the threat? Low power operation; directional antennas; never transmit or enter an active emission mode unless absolutely necessary. Realignment of radio sets have favorable effects, but realignment is time consuming and requires two to three hours per radio set. Keeping certain types of unique emitters away from high value targets is also a good idea, even if several kilometers of wire must be emplaced.

Conducting an OPSEC Survey which singles out the communications profile of a unit is an excellent tool and can be accomplished if experienced Signal Corps NCOs and Warrant Officers are included as integral members of the OPSEC team from G3. The 8th Infantry Division (Mechanized) performed a survey which revealed some useful information about site selection of multichannel emitters.

voice and eyes only

A research project at the U.S. Army Engineer Topographic Laboratories (ETL) at Fort Belvoir, VA., could make it possible for photo-interpreters to work without taking their eyes away from the stereoviewer.

The area of Voice Interactive Systems Technology (VIST), first investigated as an In-House Laboratory Independent Research (ILIR) effort, is now being applied to the Computer-Assisted Photo Interpretation Research (CAPIR) system. The VIST hardware will be used in the CAPIR system to increase the speed and accuracy of data input for photo-interpreters. The information extraction process will be faster and easier than the traditional "look, stop-record and look-back-again" procedure.

Other ETL development projects will be examined to identify those that can benefit from the use of voice interactive systems, and attempts will be made to apply VIST hardware to these programs.

Dr. Tice DeYoung, ETL scientist, investigates a new dimension of photo interpretation soon to be linked to the Computer Assisted Photo Interpretation Research facility.

SOVIET OFFICER CORPS TRAINING

by Maj. Wayne A. Silkett

The Soviet armed forces have no large cadre of career noncommissioned officers. Most Soviet NCO's are barely senior or more experienced than their subordinates and like their conscript subordinates, few remain in the service past their obligated term. In the Soviet armed forces, the idea of a military career is pursued almost exculusively by the officer corps.

MAINSTAY OF THE SYSTEM

In western military forces the NCO corps is the system's backbone and the officer corps its brain, while in the Soviet armed forces both functions are taken up by the officer corps. As a result, the Soviet officer corps is the world's largest and busiest. In addition to functions associated with an officer corps, the Soviet officer involves himself with functions associated with NCO's in other armies, especially training and supervision at the lowest levels.

Because the officer corps is so vital to the Soviet Military system, Soviet officers are treated as a special and privileged class. Pay, benefits, and career opportunities are better for Soviet officers than for the enlisted ranks.

The officer corps receives better treatment only because more is expected of it. Most Soviet officers are career oriented. Some 90 percent of the officer corps are members of the Communist Party and the rest are members of the KOMSOMOL (Communist Youth League, in which membership is permitted until age 28). The Soviet officer corps is politically reliable, stable, and conformist. It is also highly proficient, technically and tactically. In the Soviet armed forces, only the Communist Party is more important for an officer than the proper mix of training and experience—and Soviet officer career development patterns insure the proper mix of all three.

In western military forces the NCO corps is the system's backbone and the officer corps its brain, while in Soviet armed forces both functions are taken up by the officer corps.

PRECOMMISSIONING TRAINING

Precommissioning training for Soviet officers takes place at over 140 military colleges.[1] Each branch of the Soviet armed forces maintains an exhaustive network of military colleges, some 125[2] in all:

Strategic Rocket Force 5
Navy 10
Air Force 23
Air Defense Force 14
Ground Forces 73

Graduates of these schools receive more specialized training at the entry level than U.S. officers. In addition, Soviet officer training is very politicized.

Through the 1970's commissioning programs were from three to five years duration. Virtually all three-year programs have been phased out by four and five year programs. This has mainly been due to the demands of modern warfare becoming more technical and complex. All strategic rocket, navy, and air force officers receive five-year commissioning programs. Only air defense and the ground forces have four-year training courses, almost exclusively in nontechnical fields.

Military colleges are entered by competitive examination, open to those between 17 and 21 years of age if applying from civilian life and up to 23 years of age if applying from military service. Warrant officers may apply up to age 25 and if accepted, will usually begin as second year students. Approximately 8 to 9 percent of Soviet military college students are graduated from the Suvorov military or Nakhimov naval high schools. Each of these schools (nine military and one naval) conducts a two-year program for boys age 15 and older. Graduates of these schools may enter military colleges without taking the competitive examination.[3]

All military colleges devote approximately 60 percent of the curriculum to specialized military subjects, 30 percent to standard academic studies, and 10 percent to political studies. A portion of each school year is also spent in an appropriate troop unit, squadron, or ship.

All military colleges award degrees and graduates are commissioned in their respective branch or arm of service. From the outset, almost all military college graduates are professional, career military officers.

Besides the world's largest and most comprehensive network for producing career officers, the Soviets also maintain an extensive program for training reserve officers. Similar to the U.S. Reserve Officer Training Corps, this program provides military instruction to regular university students. Graduates receive reserve commissions.

ADVANCED COURSES

Because precommission training is long and highly specialized, Soviet officers spend more time in given assignments and units than their U.S. counterparts.[4] Advanced courses do not play a prominent part in the professional development of Soviet officers. Soviet officers strive to attend a military academy once they are on active duty. Advanced courses are for officers not selected for military academy attendance. Ground Force advanced courses are geared toward tactical and staff training through regimental level. These courses are branch or arm specific and are from four to 10 months in length.

MILITARY ACADEMIES

Without the advanced course as a normal intermediate professional development step, the Soviet junior officer's primary schooling goal is the military academy. The 17 Soviet military academies are the equivalent of a combined U.S. advanced course, staff college, and war college. These academies are the highest level of formal military education for most Soviet officers. Entrance is by competitive examination. Standards are high, and competition very keen. Resident instruction lasts from three to five years depending on the academy.

Unlike the U.S. officer education system which maintains a specific MOS orientation through the advanced course level, Soviet higher level schooling continues to stress branch and arm specialization. Except for the prestigious all-service Frunze Academy, each Soviet military academy offers high level specialized branch or arm oriented instruction. Besides higher academies for the navy, air force, strategic rocket force, and air defense force, special academies exist for political, armored force, artillery, signal, chemical defense, medical, engineer, rear services and transport, and ground force air defense officers.

The 17 Soviet Military academies are the equivalent of a combined U.S. advanced course, staff college, and war college.

Military academy age limits vary, with maximum ages between 28 and 36, depending on the school. Officers desiring military academy attendance are advised to prepare well in advance. An officer's study phase begins as a lieutenant or captain, at about age 24 or 25. Prospective candidates are advised to prepare for 2000-3000 hours prior to the competitive examination. At three hours per day every day, preparation can easily occupy two to three years. The competitive examination may be taken three times.

The senior Soviet military academy is the Voroshilov General Staff Academy. Here, specially selected officers from all branches of the Soviet armed forces, grades lieutenant colonel through lieutenant general or equivalent,[5] are trained for the highest level command and staff positions. Unlike the other Soviet academies, however, the General Staff Academy course is two years long. Most students are already graduates of one of the 17 military academies.

GRADUATE STUDY

Graduate study programs are also available in the Soviet armed forces, up through the PhD equivalent, in such fields as history, the sciences, mathematics, engineering, and naval and military science. These courses of study are available both full time and by correspondence.

OFF DUTY STUDY

Besides resident instruction programs, Soviet officers are expected—and in the case of political instruction, required—to devote considerable time to off-duty study. As noted above, preparation for military academy competitive examinations can occupy several years of the junior officer's limited nonduty time. Dozens of extension and correspondence courses are also available and officers at all levels are strongly encouraged to take them. Off-duty professional reading, beginning with the 15 volume Officers Library series,[6] is also encouraged and expected. Finally, continual pol-

itical study and indoctrination is mandatory, often supervised by the unit political officer. Regardless of an officer's technical and tactical proficiency, and of his assignments or previous military schooling, his future is absolutely dependent on his political reliability as certified by the Main Political Administration.

CONCLUSION

The Soviet officer is extremely involved in his profession. If his training is narrow and highly—even over—specialized, it is thorough and produces disciplined reliability. If his assignment history is limited, it insures experience. If he is politically coopted it reinforces his conformity and compliance. Over extended, perhaps over specialized and over politicized, the Soviet officer is nevertheless competent, reliable, and formidable. The Soviet armed forces and ruling Communist Party have never demanded he be more than just that.

Footnotes

1. These 140+ Soviet military colleges are the equivalent of the U.S. military, naval, and air force academies (equivalent in concept but not size: each Soviet military college graduates some 300-350 junior officers per year). For the next higher level of Soviet military schooling, the academy, the U.S. terminology equivalent is college.
2. There are also nine schools for political officers (zampolit) and eight for security forces (KGB and MVD).
3. Although originally founded in World War II for war orphans, today's Suvorov and Nakhimov graduates are predominantly the sons of active duty officers—a sign of the growing tradition of Soviet officer service.
4. It is not unusual at all for a Soviet company grade officer in the ground forces to spend 8 to 10 years in company level positions, often in the same regiment or division. For example, the standard tour as platoon leader is three years, three for deputy company/battery commander, and four for company/battery commander.
5. Soviet and American general officer grades are different. The Soviets have no brigadier general rank. Thus, Soviet major general, lieutenant general, and colonel general equate to U.S. brigadier general, major general, and lieutenant general.
6. All 15 volumes are available in English (USAF translations) from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

Regardless of an officer's technical and tactical proficiency, . . . his future is absolutely dependent on his political reliability . . .

SURVIVE an electronic environment

by Capt. Al Leal

The modern battlefield is fraught with lethal weapons and sophisticated electronic gear the likes of which have never been seen before. At the rate that technological breakthroughs in electronic warfare equipment are occurring and new systems being fielded by major military powers around the world, the maxim which states that "what can be seen electronically on the battlefield can be destroyed" is becoming a familiar part of the military lexicon. Therefore, any device on the battlefield which emits electromagnetic radiation runs the risk of being located, identified, and neutralized or destroyed by a variety of means which an enemy can employ.[1]

The U.S. Army's primary objective is to win the first battle of the next war and the battles that follow.[2] While emerging doctrine demands that we carry the fight to the enemy, with definable goals and conviction of purpose; in order to accomplish the stated objective, U.S. forces must do more than just MOVE, SHOOT, and COMMUNICATE . . . they must SURVIVE as an organized fighting force to effectively fight the air-land battle.[3] To be able to fight with any degree of effectiveness, brigades and battalions must maintain survivable command, control, and communications (C^3) capabilities. This is especially important when fighting outnumbered, against an enemy well-trained in C^3 countermeasures and well-equipped to employ them.[4] The key to survival on the battlefield and accomplishment of the mission is for U.S. units to practice and implement those basic techniques which will enable them to close with and destroy the enemy. These techniques will be further developed within the context of this article, which will address the steps which a unit must take in order to preserve unit integrity and maintain continuous, reliable C^3 in the face of enemy radio electronic combat (REC) on the modern battlefield.

U.S. units face three major obstacles which they have to overcome in order to operate in an electronic environment: making do with what communications equipment they have, maintaining effective C^3 during combat, and minimizing the threat to U.S. emitters posed by enemy REC units.

U.S. tactical communications systems are designed with one major principle in mind; to communicate with all necessary stations, commanders, and communication centers.[5] Very little consideration has been given during development to resolve the inherent vulnerabilities of these systems to disruption or exploitation during wartime by an enemy. While newer equipment with increased capabilities and better resistance to disruption or exploitation has been promised for delivery in the very near future, until that time comes, U.S. units will have to continue to operate with older, outdated radios.

Possibly the biggest threat to a unit's existence is self-generated. The quickest way for a unit to invite destruction in an electronic environment is for it to give its position away to the enemy through violation of basic doctrinal principles such as lack of communications security (COMSEC) or failure to enforce electronic emissions security (ELSEC). Failure to institute electronic counter countermeasures (ECCM) to counter an enemy's efforts to disrupt friendly C^3 almost assures that the effort will succeed.

As Pogo put it "we have met the enemy, and he is us." The cause of this problem can be attributed to the quality of training received by a unit. The basic premise generally accepted Armywide is that "a unit fights as it trains;" a well-trained, well-led unit is usually rewarded with battle success, while a unit which rarely trains or which trains for the wrong kind of warfare will suffer a predictable fate. Finding the time, money and room to train our combat

"To fight successfully on the modern battlefield, U.S. forces must do more than move, shoot, and communicate . . . they must first survive to fight."

units is getting increasingly difficult due to many constraints during peacetime; however, training which emphasizes critical combat skills, as well as techniques which insure unit survival on the battlefield (OPSEC, COMSEC, ECCM), must still be practiced with regularity to ensure familiarity. The problem arises during the conduct of training as to what to teach the unit; conflicting priorities impose time constraints on commanders which forces them to emphasize that which they

"We have met the enemy . . . and he is us!"
—POGO

feel comfortable with, and disregard that which is alien or which they feel uncomfortable with. During past exercises, commanders failed to portray EW on the battlefield during training because they did not want it to interfere with accomplishment of their mission. When units did train using EW, the result was that EW was portrayed unrealistically (jamming between 0200-0400 hours), or else the opposite resulted, the havoc caused by EW disrupting friendly C^3 was great enough to lead to an overestimation of the EW threat and cause friendly radios to shut down in effect allowing the enemy EW to succeed. Neither approach is appropriate because during wartime, to totally ignore the threat of enemy disruption of friendly C^3 will lead to the early destruction of that unit; while overestimation of the threat posed by such enemy activity will cause commanders to become reluctant to communicate for fear of being identified, located, and destroyed. What is required is for commanders to take an objective look at their units strengths and apparent vulnerabilities, to take positive steps to remedy those vulnerabilities, and to apprise themselves of the threat posed by potential adversary REC units and systems. To paraphrase Sun Tsu, the Chinese philosopher, "If you know yourself and you know your enemies, you will be victorious in a thousand battles."

In any future conflict involving U.S. forces, the probable enemy will be Soviet, Soviet-trained, Soviet-equipped, or any combination thereof. For the purpose of argument and this discussion, the presumption will be that our potential adversary will be Soviet. Therefore, it becomes incumbent upon U.S. commanders to know their enemy . . . for they know you.

THE THREAT

The Soviets have invested considerable effort and resources to develop a present capability to wage what they term REC. The Soviet Military Encyclopedia defines REC as:[6] "A set of measures, conducted for purposes of intelligence/reconnaissance and subsequent radio electronic suppression of the enemy's combat electronic systems and facilities, as well as radio electronic defense of our own C-E facilities and systems. REC measures are conducted in conjunction with the destruction of enemy C-E facilities, primarily by means of anti-radiation weapons." To obtain this capability, the Soviets have incorporated EW and means of physical destruction. The strategy behind this doctrine is obviously to deny the enemy use of his command, control, communications, intelligence (C^3I), and target acquisition systems. The concept of Soviet REC differs from the U.S. view of EW in one important aspect: The Soviets employ REC as an offensive tactic fully integrated with the overall concept of an operation whose stated objective it is to destroy or disrupt over 50 percent of an enemy's C^3 systems.[7] U.S. EW, on the other hand, seeks to exploit or deny enemy use of the electronic spectrum primarily through surveillance or jamming.

Since Soviet REC is primarily designed as an offensive weapon to disrupt enemy (C^3I) systems; the key elements which can affect U.S. combat units are their radio intercept, radio and radar direction finding, and jamming capabilities.

Soviet REC is more intensive than U.S. EW therefore, the Soviets possess a capability to intercept most tactical radio transmissions within ten kilometers of their intercept posts up to 61 percent of the time for an AN/PRC-77 and up to 99 percent of the time for an AN/VRC-12 using high power transmitting mode.[8]

By virtue of their ability to intercept a high percentage of U.S. radio traffic, the Soviets possess the capability to employ imitative electronic deception by posing as friendly stations and disrupting a net by issuing bogus orders or simply tying up the net with challenges to authenticate.

Soviet DF involves reception of an electronic signal and determining the line-of-bearing of the maximum signal strength.[9] By taking LOBs from three separate locations and intersecting them by plotting back azimuths, a fix of the target area and emitter location is obtained. Modern DF equipment

"If you know yourself and you know your enemies, you will be victorious in a thousand battles."
—SUN TZU

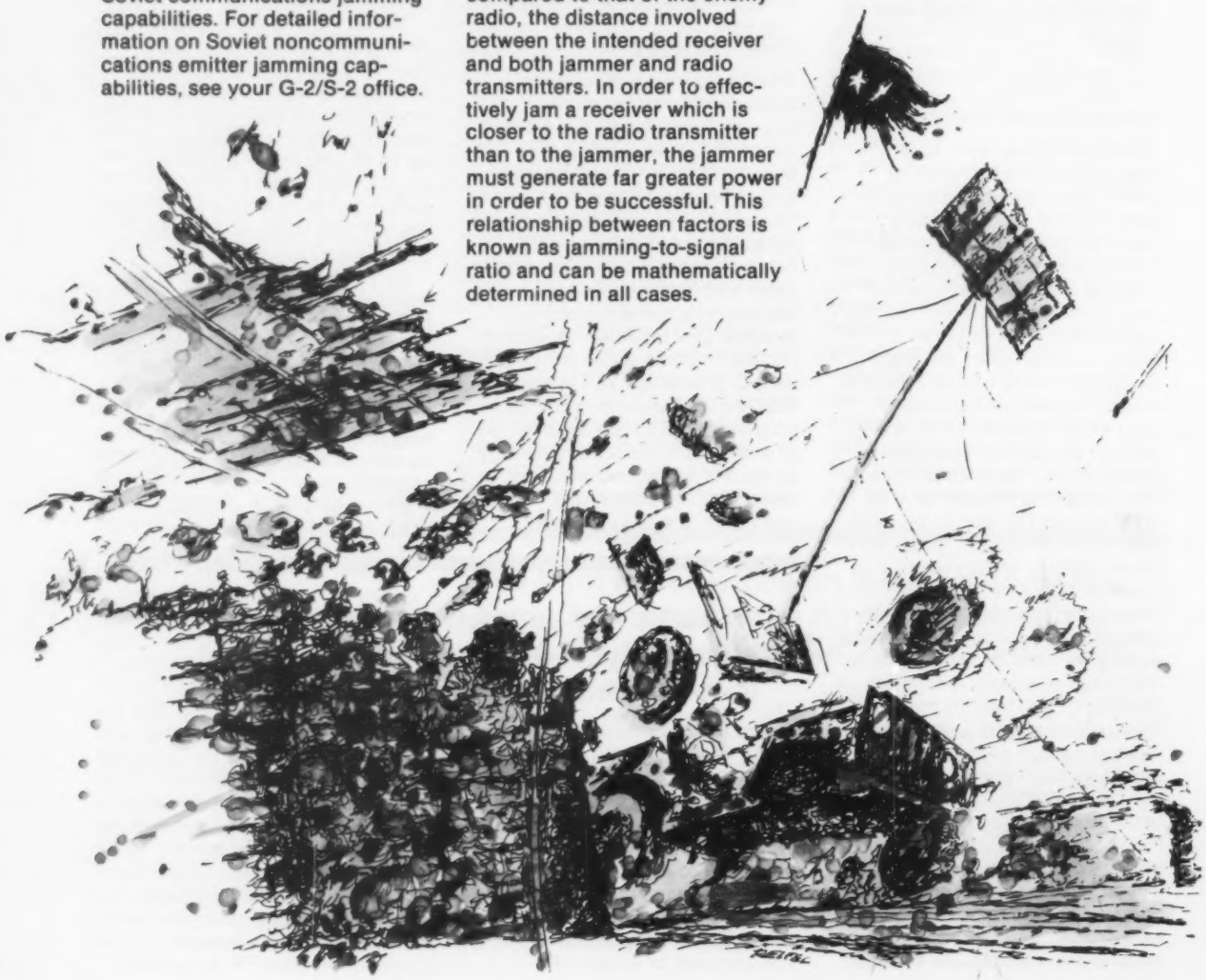
allows for a small margin of error, but can obtain a target area as small as 1500 meters.[10] Map reconnaissance will further reduce the target area by pointing out probable emitter locations (hillcrests, high terrain commanding good radio line-of-sight etc.).

Once a fix is obtained, the decision can be made to destroy the target by calling on fire support means. DF works equally well for both radio and radar generated electronic signals.

Jamming is the third facet of Soviet REC which has the potential to seriously degrade U.S. unit operations.[11] The scope of this article extends only to Soviet communications jamming capabilities. For detailed information on Soviet noncommunications emitter jamming capabilities, see your G-2/S-2 office.

Simply stated, COMJAM consists of transmitting a signal (usually noise) on a frequency being used by the enemy. The enemy radio tuned at that frequency will receive or be captured by the strongest signal on that frequency. Where two signals are received, the stronger signal will be heard while the other is not. If the stronger signal is generated by the jammer transmitter, the jamming is effective, with the result being that the enemy radio transmission will not be communicated to its intended destination. Certain factors affect the effectiveness of communications jammers; such as jammer transmitter power compared to that of the enemy radio, the distance involved between the intended receiver and both jammer and radio transmitters. In order to effectively jam a receiver which is closer to the radio transmitter than to the jammer, the jammer must generate far greater power in order to be successful. This relationship between factors is known as jamming-to-signal ratio and can be mathematically determined in all cases.

The danger of Soviet COMJAM comes not so much from jamming directed at individual stations (spot jamming) but rather from barrage jamming whereby many frequencies are jammed simultaneously. This type of jamming works best during an attack and is preferred by the Soviets in order to cause confusion on the battlefield. Spot jamming is reserved for selected critical communications nets and target acquisition means which have been positively identified. The Soviet ground forces are well-equipped with tactical communications jammers, such that they can pick the time and place in which to



initiate massive jamming in support of their offensive action.

The Soviets have provided their ground forces with ample REC assets, which can be found at every organizational level from Front to Regiment. Additionally, Soviet Frontal Aviation is well-equipped to perform REC missions in support of the ground force commander. However awesome their REC capabilities may appear on the surface, the Soviets are not 10 feet tall, their equipment, doctrine, and tactics have certain limitations which can be exploited by U.S. units in order to minimize their substantial threat.[12] Prudent use of present EW capabilities possessed by U.S. units can serve to counter and minimize the effect of REC.

HOW TO SURVIVE

U.S. combat units rely heavily upon radio for command and control of subunits, hence their capacity to remain effective as fighting forces responsive to rapid changes during fluid battle conditions will depend largely upon their ability to maintain continuous C^3 systems for enemy exploitation, disruption, or destruction.[13] Since the largest collection of emitters is found at the Tactical Operations Center at brigade or battalion level, the subject of command post survivability will be addressed, however, all techniques described herein are applicable to any U.S. radio transmitter on the battlefield.

The TOC plays an important role during the battle, yet because of its extremely large and distinct electronic signature it can be located, identified, and targeted for destruction within a relatively short time. If destroyed, it is a loss which a unit can ill afford, as it would seriously degrade the ability of a unit to continue to fight as an organized force, especially when fighting is outnumbered.[14] There are a number of ECCM techniques which can be used by a unit to significantly reduce the electronic signature of a TOC and make it increasingly difficult for Soviet REC specialists to find and fix its location on the battlefield, thereby increasing the TOC's chances for survival. The first key is to move frequently. Frequent displacement of headquarters is essential, regardless of the tactical situation. Present doctrine calls for division CPs to relocate one to three times, brigade CP three to five times, and battalion CP six to eight times within a 24-hour period.[15]

The best types of ECCM techniques revolve around emission control in order to reduce the number of transmissions which reach enemy radio intercept or monitoring stations. By reducing radio transmissions to an absolute minimum, broadcasting short messages (less than 30 continuous seconds), and communicating on an infrequent schedule, unfriendly listening posts will be deprived the information they need to mount effective REC. Use of proper radio procedure when messages must be sent reduces transmission time and results in fewer readbacks, especially when approved brevity codes are used. This also reduces the amount of time which an enemy has in which to react to and disrupt the communication. Use of directional or horizontally polarized antennas greatly reduces the possibility of enemy intercept and DF, and especially when broadcasting to rearward units. Additionally, the increased gain makes the narrow radio wave difficult to jam.

Besides emission control procedures, there are other techniques which will help defeat enemy REC efforts. Use of terrain masking is an effective technique to prevent the enemy from receiving a strong signal. The object is to place terrain features between friendly antennas and enemy intercept/monitoring stations. Hills, valleys, forests, and buildings will serve to reflect, absorb, or scatter much of a radio wave once it gets past the intended recipient. Therefore, the signal power reaching the enemy will be reduced, or the radio was reflected to give inaccurate DF bearings. Terrain masking is very important when selecting TOC positions, rearslopes being preferred. High density positioning of emitters on the battlefield results in a strong electronic signature. Ideally, emitters should be positioned as far apart as is practical. Remoting antennas separately works best.

Having all emitters located within the TOC or all remoted in one location invites enemy DF and subsequent destruction with a resulting loss of communications. Alternative means of communications when developed, such as Morse code, prearranged signals, messengers for nonpriority messages, are excellent in defeating enemy REC tactics and serve as redundant methods of control.

"The Soviets are not 10 feet tall . . ."

To survive on the modern battlefield, U.S. forces will need to work around the threat posed by Soviet jamming. Every commander must come to grips with the realization that Soviet REC doctrine with regard to jamming is extensive and totally integrated at every level of command.[16] To counter or defeat jamming, U.S. doctrine calls for various measures to be taken which in most circumstances will alleviate the problem and permit units to communicate.

When an operator believes he is being jammed, immediate measures are called for such as checking the equipment for internal malfunction by disconnecting the antenna. If none is found, the operator should then attempt to talk through the jamming without acknowledging the presence of the jamming signal. To do so will serve to indicate to the enemy that this jamming is effective. If the jamming continues and the operator cannot override it with low power, then a high power setting should be used. If

jamming persists, changing frequencies may provide temporary relief, until the enemy finds the alternate frequency. When a unit is unable to effectively communicate directly with intended receiver, then alternate means of communication should be used (usually per pre-arranged unit SOP). Relaying a message through another station in contact with desired station is one such alternate method. Morse code use is an effective means of defeating jamming due to a shorter transmission time as well as being more difficult to jam. The use of a horizontally polarized antenna can provide better reception and transmission due to their reduced radiowave propagation. The last suggestion when encountering jamming is to report the particulars so that others can become aware. Reports of jamming should not be broadcast over the air.

SUMMARY

While the ECCM techniques described herein are not new or all inclusive, their collective employment and enforcement by U.S. combat personnel needs to be constantly reviewed, for very often they are disregarded in favor of simplicity or expediency. When applied and integrated into regular training these techniques do not take up any more time than incorrect practices. However, when coupled with good use of OPSEC, camouflage, and proper radio procedures, they will greatly improve brigade and battalion C^3 survivability in a conflict where the REC threat is real and present.

Where deception is fully integrated within the scheme of things as recommended by the air-land battle doctrine, we can begin to insure that U.S. combat units will survive to fight on the modern battlefield in an electronic environment. This capability can only be established by constant practice of those techniques which will enable our forces to accomplish their mission . . . that of closing with the enemy and destroying his capacity to wage war . . . as has been the case since time immemorial. The modern battlefield is no different.

Footnotes

1. *"Control the electromagnetic spectrum and control the unseen battle."* 1LT Thomas W. Dworschak. ***The Army Communicator,*** Summer 1981.
2. FM 100-5, Operations.
3. Air-land Battle Concept, TRADOC Pamphlet 525-5.
4. *"Survivability—Key Ingredient for Command and Control"* LTG Hillman Dickinson. ***Military Review,*** November 1981.
5. *"Battlefield Communications and Survival"* LTC Patrick A. Bowman. ***Journal of Electronic Defense,*** July/August 1981.
6. **Soviet Military Encyclopedia—** Standard definition based on Col. A.A. Sidorenko's quote regarding control disruption, 1979 edition.
7. FM 34-70, REC Chapter, 1982.
8. *"Control the electronic spectrum and win the unseen battle."* 1LT Thomas W. Dworschak, ***The Army Communicator.*** Summer, 1981.
9. Bowman,pg 56.
10. ibid.
11. ibid.
12. ibid.
13. *"Electronic Warfare and CP Survivability"*, Capt. William L. Mundie, Jr., ***Armor,*** Nov/Dec. 1981.
14. ibid.
15. Dworschak, pg 27.
16. *"How to get yourself out of a jam,"* David M. Fielder, ***The Army Communicator,*** Fall 1981.

INTERROGATOR

by Frank Douglas

They have ways of making prisoners talk. However, those ways are useless if prisoners speak a language military interrogators do not understand. Personnel participating in "Certain Encounter," NATO's annual fall REFORGER exercise, were glad to test their language skills during the war games.

German and American MI personnel acted as mock prisoners during last year's REFORGER. These prisoners spoke fluent German, Polish, or Russian. (Several of the soldiers are former residents of those nations.)

The interrogators are given the information by a guard. They learn where each prisoner was captured and any events between the capture and the questioning. The prisoners start speaking their language and questioning begins. The interrogator finds the breaking point and interrogates the prisoner in the correct language and technique.

The interrogations were under strict controls with a referee for the two war-gaming teams presenting all the questions. No prisoners were kept for over four hours. The troops were pleased to have the opportunity to question several MI specialists from the Fifth Panzer Division. Many of the West German soldiers used as prisoners are Russian natives who later became citizens of the Federal Republic of Germany. This was a training exercise for the interrogators and for those interrogators who played the part of the mock prisoners.

USAICS NOTES

Ssgt.Kathy J. Mengel

New 96D20 course announced

The Skill Level 2 96D Image Interpreter Course has been revised, the Resident Training Branch, Course Development Division has announced.

The program of instruction has been redesigned to give Skill Level 2 soldiers the skills needed to support the tactical commander and eliminate skills that are no longer critical.

The course has been expanded from three to six weeks. Course subjects now include Advanced Imagery Interpretation of Ground Order of Battle, interpretation of Advanced Synthetic Aperture Radar Systems, Intelligence Preparation of the Battlefield in support of the Airland battle concept, and the instruction required to obtain National Imagery Interpretability Rating Scale certification.

Resident Training Branch is now studying the need for a Skill Level 3 Image Interpreter Course.

Mengel named Instructor of Year

SSgt. Kathy J. Mengel has been named the Intelligence Center and School Instructor of the year for 1981.

Along with her honors, she was presented with a plaque from the Sierra Vista Chamber of Commerce, a weekend for two at the Double Tree Inn in Tucson, a weekend for two at the Point in Phoenix, dinner for two at the Steakout, a $50 gift certificate for the Outback and an overnight stay for two at the Thunder Mountain Inn in Sierra Vista.

Mengel, an instructor with Exploitation Division, Department of Human Intelligence, Director of Training and Doctrine has been with ICS for approximately one and a half years.

According to Dr. Russell Watson of Staff and Faculty Division, DOTD, the criteria for selection is based upon classroom performance, personal and professional development (self improvement through college and correspondence course, and any additional training the individual has received, and any training material the individual has worked on to improve training), and having been selected the instructor of the month during the previous 11 months.

The eleven instructors of the month are then screened to determine the instructor of the year. Out of a possible maximum number of 400 points under the program grading system, Mengel totalled more than 380, the second place finisher was close behind. She was chosen as USAICS Instructor of the Month for October and December.

Mengel came to Fort Huachuca from an assignment with the 165th MI Bn, Eschwege, Germany.

Fifth Army Summer Intel School

The 35th annual Fifth U.S. Army Area Intelligence School will open on 13 Jun at Fort McCoy, Wisc. and will operate in two week sessions until 6 August. The school is in its 16th year of operations at Fort McCoy, located between Tomah and Sparta, with the nearest commercial air terminal at LaCrosse, Wisc.

The Office of Intelligence and Security, Headquarters, Fifth U.S. Army, has staff responsibility for the Area Intelligence School, which is staffed entirely by reservists and operational only during the summer months. The school's mission is to provide intelligence training to Reserve Component personnel, with emphasis on intelligence MOS qualification. The curriculum also includes specialized, non-MOS producing intelligence courses to meet the needs of the command.

Instruction presented is accredited by the U.S. Army Intelligence Center and School (USAICS), Fort Huachuca, Ariz., and closely parallels resident courses presented there. The following courses will be offered during CY 82: Tactical Intelligence Staff Officer (SSI 35A); Intelligence Analyst (MOS 96B, 964A); Interrogator (MOS 96C, 973A); Counterintelligence Officer/Technician/Agent (SSI/MOS 36A, 971A, 97B) (three phases, two weeks each phase); the SIGSEC phase exclusively for Counterintelligence Officers (36A) (un-phased); S2 Combat Operations (un-phased); and Security Manager (un-phased).

Questions concerning the Fifth U.S. Army Area Intelligence School should be directed to Mr. Lopez or Capt. Cary AUTOVON 471-5516/4907, or commercial (area code 512) 221-5516/4907.

Instructors of the month

The USAICS Instructor of the Month for September was SFC William P. Ryan. Ryan, a native of Charlestown, Mass., is currently assigned to the Department of Tactical Intelligence and Military Science, Directorate of Training and Doctrine, as an instructor. A few of the many courses he teaches are Map Reading, Command and Staff Planning, Organization of Army Divisions, and Defensive Operations. He has over 20 years service with the U.S. Army and arrived at Fort Huachuca in May of 1980 from his previous assignment with the U.S. Army Recruiting Command, Louisville DRC. He is currently working on an Associate of Arts Degree Program with Cochise College. During his spare time, Ryan enjoys cave exploration and hiking in the Huachuca Mountains.

The USAICS Instructor of the Month for October was Ssgt. Tom L. Herr. Herr has been with the U.S. Army since 1969 and hails from Chadron, Nebraska. He arrived at Fort Huachuca in 1978 and has been the Senior Instructor in the Airborne Camera Repair Course with the Department of Surveillance and Systems Maintenance (DSSM). Herr attended Chadron State Teacher's College and just recently completed the Army Apprenticeship Program in the field of Aircraft Electrical Mechanic.

The USAICS Instructor of the Month for November 1981 was Ssgt. Carl E. Johnson. Johnson arrived at Fort Huachuca in October 1980 and is with the Department of Human Intelligence as an Instructor in Map Reading, U.S. Army Structure and Doctrine, Tactical Screening, and Internal Defense and Development. His previous assignment was with the 1st Infantry Division (Forward) in Germany. Johnson, a native of Massachusetts, has been with the U.S. Army for over nine years. He has an associate's degree in Accounting from Bentley College, Waltham, Massachusetts and is currently working on a Baccalaureate Degree from the University of Arizona in Business Administration.

SFC William P. Ryan

Ssgt. Tom L. Herr

Ssgt. Carl E. Johnson

Intel conference held

Nearly 80 military intelligence officers and civilians attended the Intelligence Personnel Development Conference at USAICS, Fort Huachuca, November 2 through 6. The conference, intended for the discussion of shortfalls and deficiencies in personnel development, produced many recommendations for improvement.

Issues discussed at the conference included company grade officer management and training, electronic warfare doctrine and training, analyst training, intelligence/EW equipment maintenance personnel management and training, and counterintelligence/operations security doctrine and training. Also discussed were human intelligence (96C/97C) personnel management and training, requirements for training tactical linguists, automation in intelligence personnel training, and warrant officer training.

Mr. Charles Leavenworth, Chief of USAICS Enlisted Personnel Management Division and conference coordinator, said almost all of the users, managers and trainers who attended the conference were from CONUS posts and units. Since the conference was intended to develop dialog between users and trainers, Leavenworth hopes that representatives from overseas units will be included in the next conference.

USAISD NOTES

Information Searching Made Easy

What can save you hours of searching through magazines, newspapers and indexes? A computer terminal is the answer. Technology and the TRADOC Library and Information Network have brought this time-saving device to the USAISD Library. Resembling a typewriter, the computer terminal can give access to four commercial information retrieval systems. The DIALOG, BRS, New York Times Information Bank and OCLC computers can be reached through a single telephone and the Texas Instruments "silent" terminal. All of these computers are located in three different states.

DIALOG and BRS have more than 140 data bases. Data bases are indexes and abstracts and reference tools which have been put on-line. Such familiar tools as **Books in Print,** Educational Resources Information Center and National Technical Information Service can be scanned in minutes. Researchers in the humanities and the sciences will discover that their heavily-used index or abstract has been automated. However, that most familiar and favorite index, the **Reader's Guide to Periodical Literature,** has not been put on-line—yet.

DIALOG and BRS can scan over 40 million articles in two to 12 minutes. Any one article can be retrieved by author, title, keyword or just a topic. Searching can be tailored to time period, language and how many articles needed. In-depth searches with more than 10 articles are generally done off-line when the computers are not in use. These off-line "prints" are then mailed to the library in less than two weeks.

The New York Times Information Bank accesses 55 major newspapers such as the ***Washington Post*** and the ***Christian Science Monitor*** besides the ***New York Times.*** Abstracts of front page articles as well as editorials can be retrieved by by-line, keyword, subject and even the length of the newspaper article—small being under one column to long being over two columns. Although automated, the ***Boston Globe*** is not included in the New York Times Information Bank. It is a separate system which will be acquired by the USAISD Library at a later date.

After the on-line or off-line search is in hand, the library might not subscribe to the needed magazine or newspaper. The On-line Computer Library Center in Dublin, Ohio, can meet your needs by making known the resources of over 2400 libraries and institutions. The librarian simply makes an automated Interlibrary Loan request using this information retrieval system and the terminal. A xerox copy of the magazine or newspaper article should arrive to your library in two weeks. OCLC also makes possible automated Interlibrary Loans for books.

Not limited to commercial retrieval systems, the computer terminal can access the Defense Technical Information Center data base. Any aspect of military science in whatever stage can be researched. DTIC inputs DOD technical reports done on a subject, research in progress and even what is being proposed at the moment. Unlike commercial computers, DTIC documents can be ordered on-line after a search is made. However, only unclassified portions of documents can be printed at this time by the USAISD Library terminal. In the planning stage is a direct access line for retrieval of classified portions of documents no higher than SECRET.

To make use of any of the four commercial retrieval systems and DTIC, the library patron fills out a request form and is interviewed by a librarian. The librarian determines the search strategy and the alternatives. This depends on the exact idea and concept required and the indexes and abstracts involved. The interview is also necessary to tailor the on-line or off-line print to the library patron's needs.

Located in Revere Hall, the USAISD Library is currently installing the lines for the computer terminal. Expected date of operation is March 1982. However, as of last fiscal year, the USAISD Library has been using automated cataloging and book ordering services. The USAISD and the USAICS Libraries are two of 27 TRADOC libraries that have on-line searching capabilities. As part of its resource-sharing program, the TRADOC Library and Information Network has provided the equipment, training and funding. This service has also been extended to overseas Army libraries. Hours of searching can be saved by asking the librarian to use the computer terminal.

STRAC soldiers honored

The United States Army Intelligence School, Devens has initiated the Skill, Tough, Ready Around the Clock (STRAC) training program for soldiers of the 1st Battalion. The program enables USAISD students to build on their basic military tasks and learn the technical skills of their MOS. Pfc. Dale L. Hillman, Jr., a graduate of the EW/SIGINT Noncommunications Collector Course, was the first student to earn STRAC honors.

For the Skill requirement, each AIT student is evaluated by instructors on classroom behavior and academic performance.

For the Tough requirement, each soldier must earn the maximum number of points on the Army's Physical Fitness test.

And for the Ready Around the Clock requirement, the soldier must get outstanding on inspections, demonstrate exceptional

knowledge of soldiering skills and show exceptional personal achievement of garrison standards. Soldiers who achieve the STRAC Award earn several rewards:

- ☐ The STRAC Certificate, which is presented at an awards ceremony
- ☐ The privilege of wearing the 1st Battalion T-shirt in battalion PT formations and anytime when off duty
- ☐ Press recognition
- ☐ Pass privileges

In addition, the soldiers who achieve and maintain STRAC throughout successful completion of their MOS training receive the Department of the Army "Certificate of Achievement" at their USAISD graduation ceremony. The acknowledgement becomes a permanent record in their official military personnel file.

New Realism in ARTEPS

A working group from the U.S. Army Intelligence and Security Command and the U.S. Army Forces Command, USAISD personnel have developed a training support package for use with ARTEP 34-167, Collection and Jamming Company, Combat Electronic Warfare Intelligence Battalion (Division). This package gives the C&J company commander the enemy electronic signals, supporting technical materials, and evaluation mechanism (correlated to ARTEP standards), to assess SIGINT/EW technical proficiency of subordinate C&J elements.

ARTEP 34-167 contains combat critical collective tasks, conditions, and standards for the SIGINT/EW elements of the C&J company. The company commander has the job for developing scenarios and enemy signals environment. A shortage of personnel in CEWI units, the lack of raw materials, and other demands on a company commander's time, FORSCOM requested assistance from TRADOC to provide training material.

The working group combined pre-recorded live mission intercept of enemy voice, manual Morse communications, and video tape recordings of simulated enemy radars to create a signals environment representing enemy actions in a European scenario.

Six major components were integrated to make the TSP as realistic as possible and to create a flexible, plausible product. The six components were: (1) general scenario, (2) EEI extracted from a valid real-world OPLAN, (3) a signals environment structured and sequenced to answer/satisfy EEI, (4) specific GO/NO GO responses/team actions based on ARTEP standards and cued by the taped signals environment, (5) a set of controlled input materials consisting of tasking messages, tactical reports, resource status reports, and operator position logs, and (6) a complete set of user instructions and guidance.

The final product, an ARTEP ASP, was reviewed and approved by FORSCOM technicians and unit commanders from 12 MI units. Field validation took place at Fort Hood, Texas during March 1981 with SIGINT/EW personnel from the 312th MI Battalion, 1st Cavalary Division and the 522d MI Battalion, 2d Armored Division. Personnel of the 312th tested the package with the 522d acting as controllers and evaluators. To obtain a thorough evaluation, unit roles were reversed and the test repeated. Minor shortcomings were corrected by the work group and a follow-up evaluation was conducted in May using the 312th and 522d MI battalions, plus the 101th MI Battalion, 1st Infantry Division, Fort Riley, Kansas.

The exercise play called for each C&J team to send resource status data to the C&J platoon headquarters where a formal resource status report was prepared and forwarded to the CEWI battalion operations center (simulated) and the supported brigade tactical operations center (simulated). After preparing and forwarding the resource status report, SIGINT/EW operations began when chief evaluator (simulating the BOC) inserted a tasking message directly to the C&J platoon headquarters. The platoon headquarters element analyzed the tasking message, then assigned appropriate collection and jamming missions to its subordinate C&J teams.

During the play of the taped signals scenarios, the C&J teams identified and reported information and initiated simulated jamming missions. The C&J platoon headquarters transcribe-analysis team acted on the information received by generating tactical reports and by transcribing and translating portions of the intercepted voice communications.

After the exercise, team controllers and evaluators assessed each team's SIGINT/EW technical proficiency by reviewing the GO/NO GO entries. A brief narrative was written listing deficiencies in team performance. The chief evaluator reviewed each narrative, prepared a written report on the findings, and presented an out-briefing to the CEWI Battalion commander and staff on the results and the usefulness of the TSP.

Although the initial ARTEP TSP emphasizes only SIGINT/EW, it is not the intent of this program to stress these disciplines to the exclusion of other intelligence disciplines. To do so would defeat the all-source intelligence concept and reduce the overall effectiveness of CEWI units. For this reason, intelligence specialists at USAISD, FORSCOM, and INSCOM are working to expand this initial effort beyond the signals environment. Plans are underway to develop imagery input (SLAR, Photo, IR), scripts for interrogators and role players, and input from other intelligence sources such as national systems and adjacent units. This multidisciplined TSP is scheduled for field testing by FORSCOM in Feb.-Mar. 1982.

TASK SURVEYS DRIVE SQTs

by John Angle

As proponent for MOSs within the 98 and 33 Career Management Fields, the U.S. Army Intelligence School at Fort Devens is responsible for the production of the Skill Qualification Tests and the Enlisted Personnel Management System (EPMS) documents, such as Soldier's Manuals and Trainer's Guides, which serve as the focus of training for personnel in these MOSs. Without accurate up-to-date products of these types, enlisted SIGINT personnel cannot receive the training and evaluation to maintain a high level of performance in the field. It is the responsibility to the Training Analysis and Design Division of USAISD to develop SQTs and EPMS documents. Within TADD, the foundation of this development is laid by the Training Analysis Branch. This is accomplished by providing TADD's test and manual writers with the most current picture of SIGINT field activities.

The principal focus of TAB's program of analysis is in the maintenance and continual updating of critical task lists for those MOSs for which the school is proponent. The eight MOSs involved are 05D, 05G, 05H, 05K, 98C, 98G, 98J, and 33S. A critical task list describes all activities which individuals within an MOS must perform and which take priority for training over other tasks performed by the MOS. It is from this task list that all training materials and tests for an MOS are generated. The CTLs, and, in particular, the analysis program which produces and maintains them are initial components in the training development process. The analysis program is crucial toward insuring that enlisted personnel in the 98 and 33 CMFs are adequately trained, for without accurate information to feed into the development effort, we cannot count on the SQTs and EPMS documents as reliable representations of their relevant MOSs. A SQT which is based on inaccurate analysis input will test personnel on tasks which they do not perform and of which they have no knowledge. This must be avoided.

To obtain the information needed to maintain current CTLs for all USAISD MOSs, TAB has instituted a task survey program. Every year, all MI units throughout the world are sent surveys intended to determine what tasks are required for each of the school's proponent MOSs to accomplish each unit's mission. The survey format has gone through some changes recently and, depending upon analysis needs, may undergo further changes in the future. Each survey consists of a list, by skill level, of all those tasks which have been identified as critical to the MOS, plus any new tasks for which data is needed to determine their relevance to the MOS. Every survey asks for the same type of information about each task: (1) Is the task required for its MOS in order to accomplish the mission of the unit being surveyed? (2) How many individuals in that MOS at that unit perform the task? (3) What type of SQT component (skill component, hand-on component, or job site component) would be best suited for testing personnel at that unit? At the end of each survey task list, the individual responding to the survey should write in any other tasks which he feels reflect the needs of the unit for that MOS.

Ideally, all the information described above, can be obtained in a straight-forward fashion without intervening complications. Unfortunately, this is not generally the case, as a multitude of problems can arise. Most prominent of these is a situation in which a unit gives inaccurate responses to the survey. If a unit claims to perform almost every task in the survey, or if it claims to perform two or more tasks which are mutually exclusive (i.e., if a unit performs one of these tasks, reason dictates that the other task could not be performed by the same unit), the survey responses preclude TADD from meeting the training need of the unit.

A related problem is the failure of a unit to write in additional tasks which it requires for its mission, but which are not included in the survey task list. It is upon this type of input that TADD relies most heavily in keeping an up-to-date picture of performance requirements for each MOS. The need for this input cannot be overemphasized, since the intelligence field, more than any other in the military spectrum, is characterized by widespread diversity within each MOS and a constant evolution of equipment and procedures. Perhaps the best approach any unit can take in responding to the task survey is to fill the survey sheets and any additional sheets with as many specific comments, task additions, criticisms, questions, etc., as are needed to provide a complete and accurate description of that MOS's requirements within the unit, and establish a rapport with TAB personnel to permit greater sensitivity to the training needs of the unit.

How can a unit assure itself its best possible response to a task survey, and therefore, its best

possible representation for the development of training materials? The two most important factors are who fills out the survey and when is it filled out. An individual or individuals in a supervisory capacity closest to the work which is actually being done by the target MOS in the unit will provide the survey responses. A supervisory NCO working within the target MOS may be the best respondent. Units containing large numbers of personnel in the target MOS would profit from a committee of supervisory NCOs acting as respondents. In either case the survey, once received, should be dealt with as quickly as possible, principally because it requires that the unit perform a certain amount of self-analysis, the complexity of which cannot be taken lightly. Also unless the survey is returned to TAB by the suspense date, there is no guarantee that the information it contains can be incorporated into subsequent training materials.

Unfortunately very few units can receive SQTs tailor-made to their specific needs, however, the task surveys employed by TAB are the only means presently available to TADD for providing the needed sensitivity to MI units' training and evaluation requirements. Future developments in TAB's analysis effort will bring SQTs and EPMS documents closer to meeting the needs of personnel in the units. The extent to which TAB is successful in its analysis mission, however, will depend on the effort put forth by individuals in the field to respond to task surveys and to provide constructive criticism. To this end, any suggestions as to how USAISD may better accomplish its mission are needed and welcomed.

MI Warrant Officer Education

In 1977, the Chief of Staff, U.S. Army, directed that a study be conducted to determine commissioned and warrant officer training requirements. The result of that effort, ***The Review of Education and Training for Officers*** Study was published in 1978.

A significant modification of the warrant officer education system was recommended in the following areas: Replacement of the WO Advance Course with functionally oriented courses; task analysis of WO positions to determine what WOs do, where they do it, and whether they were trained for it; modification of civilian education requirements in consonance with validated requirements; establishment of qualification standards for TOE/TDA positions; grading of WO positions, and discontinuance or reorientation of the WO Senior Course.

All those recommendations must be based on results of the second, the task or "front end" analysis. That analysis is in the final preparatory stage, the formulation of a job or task survey. In the near future, all MI warrant officers holding MOS' 961A, 962A, 964A, 971A, 972A and 973A, will be asked to complete the survey for their MOS. The survey for the 98 Occupation Group will be delayed because of a difference in TRADOC milestones. The result of the survey will dictate the MI WOES for some years to come. In view of this, you are asked to objectively respond to the survey questions and assist in your own career development. In conjunction with that survey, personnel from the RETO Branch, Officer Training Division, Directorate of Training Developments, USAICS, will be personally contacting commanders and supervisors of warrant officers to obtain their professional views on MI WOES.

The RETO effort at USAICS is currently being accomplished by WOs representing the following MOS': 962A, 971A, 972A, and 973A. At the present time, responsibility for 285A and 98 series WO MOS' rests with the U.S.A. Intelligence School, Fort Devens. The thrust of WO RETO, USAICS is to restructure the WOES as follows: Eliminate the current MIWOAC and initiate an entry level course, using portions of the WOAC program of instruction; select from lists of available courses with the Department of Defense schools system, functionally oriented courses to serve as advance courses for MI WOs, and use an existing senior level DOD Intelligence Course as the MI WOSC. In so doing, the goals are: To prepare the newly appointed WO for his first assignment; to enroll 100 percent of mid-level MI WOs in a course granting WOAC credit, and to enroll from five to ten percent of MI WOs in a course granting WOSC credit. Presently, approximately 50 percent of MI WOs go to the MIWOAC and only .2 percent attend the WOSC. As these statistics show, the current WOES is inadequate to fulfill the needs of the MI WO or of military intelligence.

In addition to WO RETO, effective 1 October 1981, a change to AR 600-101 (Speciality Proponency) transferred a portion of proponency responsibilities to the appropriate Army School Commandants. It places on USAICS, the requirement to advise and recommend changes in career development and management to the Army staff. The effect on warrant officers is that of allowing and encouraging WOs to determine what is best for WOs and recommending the necessary actions.

Recommendations and comments for the RETO effort or speciality proponency can be sent to: Commander, USAICS, ATTN: ATSI-TD-OTR(WO), Fort Huachuca, Ariz. 85613. POCs are WO1 George H. Allen, CW3(P)Fernando Garcia and CW4 Jerald P. Krusick, Autovon 879-3244/5406 or commercial (602) 538-3244/5406.

tactical platoon

1

In an innovative voluntary program, the U.S. Army Intelligence School, Devens (USAISD) and its School Brigade are providing realistic field training for intelligence specialists going to Army tactical units.

Under the supervision of the executive officer, B Company, 1st Battalion, School Brigade, members of the battalion's B Company are given the opportunity to supplement classroom instruction by experiencing rugged, and realistic training in a field environment. Two-thirds of B Company's (MOS 05G, Signal Security Specialist, and 98J, Noncommunications Collectors) graduates are posted to tactical units.

A high-level personal motivation is demonstrated by students who volunteer for the program. The bulk of the training occurs during off-duty hours. This is not to replace or interfere with the MOS training which is the student's first responsibility. This initial motivation is tested by the demanding standards the TAC Platoon candidate must meet.

First of all, the candidate must have a good academic record, have scored well on the most recent Company Commander's inspection, and pass an interview by the platoon leader and the platoon sergeant. Pass a written examination in map reading and patrolling skills. A four-mile road march with individual weapons and full field equipment must be completed in one hour or less. Finally the individual must perform successfully under cadre supervision on an 18-hour patrolling exercise.

Once accepted as a platoon member the soldier moves into the Tactical Platoon's billeting area and is eligible to participate in all training. (The training program for the Tactical Platoon is built around FM 21-2, The Soldier's Manual of Common Skills.) TAC Platoon trains in orienteering, raids, ambushes and basic tactical intelligence

skills as well as adventure training.

The experience of the Tactical Platoon provides an opportunity for the soldier who is motivated to go beyond basic requirements and seek further training for their benefit and a future military unit. The goal of the USAISD Brigade is to provide physically fit, disciplined, and technically proficient intelligence specialists. The Tactical Platoon of B Company is an example of how this goal is reached through motivation of the individual soldier and innovative training.

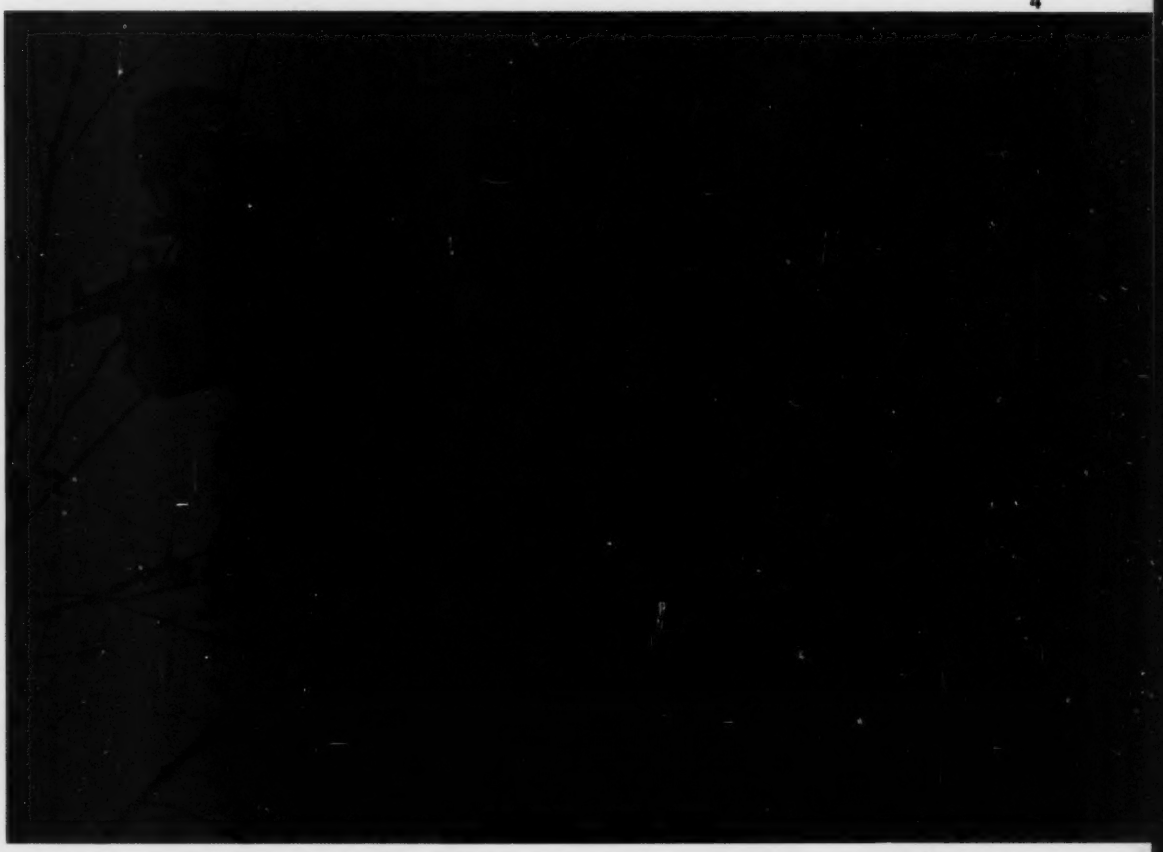
2

5

an environment for tactical training

Text by Capt. Tom Adams, Photos by Capt. Tom Adams,
Specs. 4 Alan Baird and Kenneth Dolney

4



3

6

1.Coordinating with the patrol base. Acting as radiotelephone operator Pvt. 2 Donald Stockdale practices communications skills by reporting his patrol's position.

2. NBC Training. Pfc. Anthony DiGiovani adjusts his NBC protective mask in response to a sudden attack with simulated chemicals.

3. Putting in a Patrol. Pvt. 2 Charles Potts (L), Pfc. Phyllis Cooper (C) and Pvt. 2 Stephen Woods (R), are inserted at a remote landing zone for a recon patrol.

4. On the Attack. Pvt. 2 Jerome Patrick and Pfc. Anthony DiGiovani execute squad tactics in NBC protective masks.

5. TAC Platoon members prepare for a patrol (Man on the left holds an M-14 used as a sniper rifle.) L to R: Pfc. Louis Roldan, Pvt. 2 Jerome Patrick, Pvt. 2 Steven Savegnago.

6. Winter training. TAC Platoon members return from an overnight tactical problem in the midst of a New England blizzard.

CUBA IN ANGOLA

A BALANCE SHEET

by Capt. Tom Adams

By intervening in Africa during the late 1970s, Cuba entered deep and troubled waters. The results of this intervention have been correspondingly mixed and difficult to interpret. Much stress has been placed on the benefits to Cuba of such intervention: increased prestige among Third World nations, closer ties with the Soviet Union, combat experiences and the like. This article will briefly examine the costs and the benefits of Cuba's African experience.

Cuba is a small nation with limited resources but large foreign policy ambitions. Since its inception, the Castro government has promoted Marxist revolutionary movements as an important part of its foreign policy effort. These policies and ambitions result from the unique Cuban revolutionary experience and its effect on Cuba's leaders. In Africa these ambitions acquired an important asset, the active support of the USSR, with all that such support implies.

Before 1975, Cuba's revolutionary experience was not very "exportable" despite numerous attempts to transplant revolutions elsewhere.[1] These attempts had, however, provided Castro's government with extensive contacts among violent leftist movements and some credibility as a revolutionary partner. This, and other factors to be examined later, made Cuba a natural candidate for the role of Soviet proxy in Angola. It is important to note here that the Cuban formula for change in the past has been guerrilla revolution[2] based on a "popular" movement. In Africa, Cubans have taken the role of a conventional armed force imposing order from without the converse of the Guevarist notion of "foci around which the oppressed people will rally."[3] Cuba's ready acceptance of this role raises the suspicion that the island's leadership is less revolutionary than simply militaristic.

This is given some credence by the peculiar nature of the

Castroite leadership. Cuba under Premier Castro has become an extraordinarily militarized society. Cuban policies tend to have a militaristic flavor: many leaders wear military uniforms, and it is sometimes difficult to distinguish the military from the civilian elements in the government.[4] This military orientation and "revolutionary" commitment found a congenial outlet in support for Agostinho Neto's Popular Movement for the Liberation of Angola (MPLA), a Marxist-leaning revolutionary movement engaged in a genuine anti-colonialist struggle (although the degree of genuine Marxism in the MPLA has always been questionable).[5]

The Cuban commitment to this particular struggle was made all the more likely by that nation's long-term involvement in West Africa. The island first became involved there during the early 1960s (in Algeria and the Congo), establishing early contacts with Neto and the embryonic MPLA.[6]

In 1963, a group of about 100 military advisors was dispatched by Havana to assist the MPLA against Portuguese colonial rule in Angola. This is a typical Cuban commitment of the period when the Castro government undertook a series of low-level but widespread involvements in developing nations and Marxist-oriented revolutionary movements. The bulk of Cuban military strength, however, was retained at home for internal development work, chiefly as cheap agricultural labor.[7]

In 1968, world sugar prices plummeted. This, combined with the American embargo and a major default on rice and sugar contracts by the People's Republic of China (PRC), produced an economic crisis on the island. The Cubans were left with only one possible benefactor—the USSR. In response to these needs, the Soviet Union made a significant aid investment in Cuba.[8] By Soviet standards, this kind of massive foreign economic aid is virtually unheard of because Moscow has very little such aid to give. Not surprisingly, the Russians attached a high political price to this assistance. That same year Castro abandoned his independent foreign policy line and surprised his fellow "nonaligned" leaders by endorsing the Soviet/Warsaw Pact invasion of Czechoslovakia. The Cuban government also abandoned its relationship with Israel and became a fervent advocate of the Arab cause.

Between 1968 and 1973, the Cuban economy, aided by rising sugar prices and Soviet aid, recovered somewhat while its army underwent extensive reorganization and training under Soviet tutelage.[9] A large, competent military reserve was also developed. According to Jorge I. Dominguez, 70 percent of the force later deployed to Angola was drawn from these reservists.[10] These new factors, combined with lowered U.S. pressure against Cuba, set the stage for large-scale Cuban intervention in West Africa. In 1973, at the request of Neto and the MPLA, Cuba expanded its assistance to Angola, raising the number of advisors there to about 250.[11]

Over the next three years, this involvement escalated as other powers, including France, the U.S., the PRC, and South Africa, became involved by backing the various insurgent movements. By late 1976, 30,000 Cuban troops (including support elements) were in Angola, brought there by Soviet air and sea-lift.[12] Upon arrival they were equipped with Soviet weapons and vehicles. Fighting on behalf of the MPLA, Cuban forces, virtually unassisted by the MPLA,[13] waged three separated campaigns, fighting rival Angolan guerrilla movements and the South Africans.

MILITARY RESULTS

In northern Angola, the Cubans quickly dispersed Holden Roberto's National Front for the Liberation of Angola (FNLA) and drove them into neighboring Zaire but without forcing them to stand and fight. Fighting in the east, the Cubans made slower progress against Jonas Savimbi's National Union for the Total Independence of Angola (UNITA). Although hundreds of UNITA soldiers and sympathizers were captured, Savimbi and the key leadership escaped to continue guerrilla warfare with the support of the important Ovimbundu tribe.[14]

Campaigning against a mobile column from the Republic of South Africa (RSA), the Cuban performance was even less exceptional. Despite a clear superiority in numbers and equipment, the Cubans never managed to bring their advantages to bear. Outfought and outmaneuvered, they were soundly beaten by their foes.[15] The eventual retirement to Namibia by the RSA column was apparently brought about by the lack of U.S. and international support for the South Africans rather than any military triumph of the Cuban/MPLA forces.[16] South African soldiers operating in southern Angola reported that the Cuban troops were "indifferently trained" with little idea of the reasons for their presence and, in some cases, "a marked instinct for self-preservation."[17]

In fact, John Stockwell (the American CIA chief in Angola at the time) credits most of the Cuban's anti-guerrilla success to their use of Soviet long-range 122mm multiple rocket launchers. These weapons allegedly panicked and scattered the irregulars of UNITA and the FNLA long before actual contact was made with Cuban/MPLA troops.[18]

Since the 1975-1976 campaign which placed the MPLA in power, the Cubans have remained in Angola, fighting anti-MPLA guerrillas while training the new government's army—FAPLA (People's Armed Forces for the Liberation of Angola). The earlier failure to close with and destroy UNITA and FNLA has had grave consequences. Both movements have resumed anti-MPLA activities, cutting the vital Benguela railway while building support in the countryside. Both move-

ments are generally believed to be receiving outside support from European and Middle Eastern nations and from the RSA.[19]

At the same time, terrorist incidents have increased sharply, perhaps indicating an increase in anti-government feeling in urban areas. During 1980, at least twenty-five accused terrorists were executed by the ruling MPLA-Labor Party in Luanda.[20] As for the Cuban garrisons, they discovered that the classic problems of a foreign occupation force apply to both "revolutionary" and "colonialist" troops. Harassed by insurgents while supporting a still unreliable government army, the Cubans seem to be largely confined to their base camps. At least in some areas, UNITA is apparently contesting MPLA control of some roads and villages with a continuing series of small raids and ambushes.[21] Generally, the Cubans are finding that it is easier to be guerrillas than to eliminate them.

Not surprisingly, all of this has resulted in a morale problem aggravated by a "base camp" mentality[22] and a reported general lack of good relations with the Angolans. These attitudes have been aggravated by the guerrilla practice killing Cuban soldiers and leaving their mutilated bodies close to their base camps. Also, Castro's poorly paid troopers are alleged to have opened large-scale black market operations,[23] presumably with Soviet supplies.

Recent operations against South African units in Angola have been equally unrewarding. Cuban elements in south Angola, reinforced by East German paratroopers, have proved unable to halt RSA cross border raids into Angola. During June of 1980, a massive incursion took place when an RSA brigade apparently operated at will in Angola, pursuing Namibian insurgents for over a week. Neither the Cubans nor the FAPLA seems to have offered effective resistance.[24] This was followed in 1981 by a week-long incursion in force by South African columns which routed the Angolan regulars, destroying SWAPO base camps and Angolan military installations. On this occasion, South African Forces turned over hundreds of tons of captured SWAPO supplies to UNITA and Jonas Savimbi. The RSA troops then departed in good order, unmolested by the Cubans.

Another annoying, if minor, thorn in the Cuban side is the problem of insurgents from FLEC (Front pour la Liberation de L'Enclave de Cabinda) seeking independence for the tiny but vital oil-producing Angolan enclave in the Congo. Some number of Havana's soldiers are apparently tied down here, ironically protecting oil fields operated by the American-owned Gulf Oil Corporation.[25]

POLITICAL RESULTS

However unpromising the Angolan situation might seem on a tactical military level, it would still be worthwhile if the Cubans had achieved the political result they were presumably seeking: the installation of a stable Marxist, pro-Cuban government in Angola; credit with the USSR as an ally; and influence among third world nations.

For its part, the MPLA-Labor Party government in Luanda is growing tired of the unending, inconclusive civil war and also of the Cubans. In early 1981, the political situation in Angola was

remarkably similar to that of the past 500 years with the Luanda government taking the role of Portuguese. The ruling party controls the capital and central government, the coastal areas, and the major urban centers in the interior. But like the Portuguese colonials, they lay claim to an entire country. This is a claim which they are seldom able to enforce. As in the pre-1975, pre-independence period, various dissident movements mount effective and often armed opposition on political, ethnic, and ideological grounds. It is difficult to see how this outcome benefits the Cubans, although it certainly confers a strategic advantage on their Soviet sponsors.

In terms of Soviets gratitude and lasting recognition, Havana may also be disappointed. One recent authoritative account of the Angola conflict written in the USSR credits the Soviet Union almost exclusivly. Cuba is mentioned only in passing as one of the "socialist countries" providing post-independence support to Luanda under the banner of the USSR.[26]

Finally, Cuba's involvement has been viewed with skepticism by the "nonaligned" nations which it claims to lead. At the 1981 nonaligned Nations conference in New Delhi (Feb 13), Cuba's nonaligned status was openly challenged for the first time because of its close partnership with the USSR.

In fact the sole major political benefit to Cuba may be prestige because developing nations will now see the combination of Cuban troops and Russian arms as a worthwhile source of support in their own internal struggles. Whether Castro's government can and will support such commitments remains to be seen.

DOMESTIC COSTS

In a closed society like Marxist Cuba, it is difficult to assess the reaction to foreign military involvement. However, it is certain that the long commitment in Africa has its domestic price for Cuba as well. Exile groups based in the U.S.A. encourage growing discontent in Castro's army. This is accomplished by distributing letters from disaffected soldiers in Africa to army bases around the island.[27] Although actual casualty figures are difficult to estimate, it is perhaps significant that the Castro government has taken steps to soften the impact of such losses by selecting troops for overseas service from all parts of Cuba.[28]

By any analysis, Cuba is an underdeveloped state with limited resources. While the nation's sluggish economic performance since 1976 cannot be wholly blamed on the African involvement, such an outpouring of limited resources can only harm domestic economic growth.[29] Because Cuba's contribution is skilled manpower, it is in this area that the impact is most directly felt. The island possesses relatively few trained personnel in most fields. To win its African wars, Havana must commit its best technicians and administrators, which delays economic growth at home.

There is now evidence of resistance to such commitments in Cuba's civilian sector. Allegedly, managers there are resisting the loss of trained production personnel to military purposes. President Castro himself is said to have noted that public dislike for military service is so high that teachers and government agencies use it to threaten youngsters into behaving properly. Numerous military problems with discipline and insubordination have also been reported, supporting the belief that military service is no longer highly valued by all segments of Cuban society.[30]

Back in Luanda, the MPLA's supporters are themselves divided and increasingly bitter. Angolan blacks in particular are dissatisfied with the predominance of white, Asian, and mulatto officials and intellectuals in the present government. These are the very elements which are the most culturally similar to Cubans and congenial to their presence.[31]

Painfully aware of its small popular base,[32] tired of the war, and sensitive to charges that they are propped up by the Cubans, the MPLA-Labor Party would like to cooperate with anti-Marxist UNITA and other dissident elements to form a government of "national reconciliation."[33]

Angola President dos Santos has emphasized his need for Western trade and aid. More importantly, he has also indicated that he may, as part of a Namibian settlement, request removal of Cuban forces from Angola.[34] This is exactly what the Cubans and the Soviets stepped in to avoid in the first place. It would be both tragic and ironic from the Cuban point of view if the end result of six years of blood and sacrifice in West Africa was the very outcome they sought to prevent.

Footnotes

1. J. Bowyer Bell, **On Revolt** (Harvard University Press: Cambridge, Mass.) 1976, p. 234.
2. Ibid, p. 11.
3. This notion seems to have originated with the French revolutionary Auguste Blanqui, see Eric R. Wolf, **Peasant Wars of the 20th Century** (Harper & Row: New York) 1969, p.268.
4. John Keegan, **World Armies** (John Keegan ed.) (Facts on File Inc.: New York) 1979, p.154.
5. Colin Legum, ***"Angola and the Horn of Africa,"*** **Diplomacy of Power** (S.S. Kaplan, ed.) (Brookings Institution: Washington, D.C.) 1981, p.600.
6. Jorge I. Dominquez, ***"Cuban Foreign Policy,"*** **Foreign Affairs** (Fall 1978) p.86.
7. Keegan, op cit. p.154.
8. Since 1968 the USSR has provided direct subsidies amounting to as much as one-fourth of the Cuban GNP. It buys Cuban sugar at four times the world price and supplies oil at about one-half the world market cost. ***Economist*** (London), Aug. 25, 1979; p.30.
9. Dominguez, op cit, p.94.
10. Ibid, p.94.
11. Nathaniel Davis, ***"The Angola Decision of 1975,"*** ***Foreign Affairs*** (Fall 1978), p.121.
12. Fidel Castro as quoted ***New York Times*** (Feb. 8, 1980), p.5.

13. John Stockwell, **In Search of Enemies** (W.W. Norton & Co.: New York) 1978, pp.235-236.
14. Ibid, pp.214-215.
15. Albert J. Vetner, personal correspondence of the author. Vetner, a veteran African journalist, accompanied both the FNLA and later the RSA forces in Angola.
16. Stockwell, op cit, p.230.
17. L.L. Mathews, *"Angola,"* Keegan, supra at 4, p.50.
18. Stockwell, op cit, p.214-215.
19. Richard M. Moose, *"Statement Before the Subcommittee on Africa,"* Sept. 30, 1980, ***Dept of State Bulletin*** (Dec. 1980).
20. ***New York Times*** (Aug. 24, 1980), p.A13.
21. ***New York Times*** (Nov. 8, 1979), p.2: Vetner, supra at 15.
22. I.e., remaining close to fortified camps and bases and within support range of friendly mortars and artillery.
23. ***New York Times*** (Oct. 21, 1979), p.5.
24. ***New York Times*** (Nov. 8, 1979). p.2; Vetner, supra at 14.
25. Kaplan, op cit, p.200.
26. Rostislav Ulyanovsky, National Liberation (Moscow: Progress Publishers) 1978, p.372.
27. Francis X. Maier and R. Bruce McColm, *Cuban Diaspora,* ***National Review*** (Feb. 20, 1981), p.184.
28. Dominguez, op cit, p.86.
29. ***New York Times*** (Jan. 2, 1980), p.D5.
30. Dominguez, op cit, p.104.
31. ***The Economist*** (London) (15 Sept. 1979), p.58.
32. Kaplan, op cit, p.119.
33. John Hutchinson, *"Taking a Fresh Look,"* ***National Review*** (20 Feb. 1981), p.147.
34. ***The Economist*** (London) (24 Oct. 81), p.47.

EW DIVISION CLOSES GAP

by 2LT Charles Squires

On July 20, 1981, the Electronic Warfare Division was activated by Commander, USAICS, and placed under the Directorate of Training Developments. The division was formed to help align everyone, Army-wide, on EW. It is the "focal point" for coordinating the efforts of training developers and trainers with the real EW needs and requirements of the commanders and soldiers in the field.

Presently a gap exists between what is actually being practiced in the field and what is being presented in the classroom. Current EW field practices usually aren't incorporated into the training base until a soldier from a field unit is reassigned as a training developer or instructor. The EW Division has been tasked to close the gap between field practices and classroom instruction.

The EW Division is manned by soldiers, most with tactical MI/CEWI field experience, who have known the good and bad of tactical EW, as well as civilian specialists and technicians with 14-20 years prior military service. The EW Division is organized with a Headquarters Element, a Research and Analysis Branch, an Evaluation/Coordination Branch, and a Training Developments Branch.

The HQ Element steers the EW Division by assigning incoming tasks to the proper branch for action, monitoring progress, and providing quality control on the output. The HQ Element also provides technical and administrative support.

The Research and Analysis Branch researches, analyzes, and reviews all EW-related proponent and nonproponent literature, systems, doctrine and training in order to insure the full integration of EW into the training base. The R&A Branch has had major input into the development of the exportable Electronic Warfare Staff Officers Course (ASI 5M), as well as the review of the 34-series FMs, FM 100-5 and FM 101-5, to mention a few.

The Evaluation/Coordination Branch is the hub of the EW Division. Its mission is to determine user EW training requirements and to insure that the EW training, EW training materials and EW literature produced at USAICS satisfies those user requirements. The E/C Branch gathers input from field units and schools and introduces it into the training development process. This is accomplished by participating in field exercises as evaluators (Bold Eagle, Team Spirit, etc.), and by monitoring practices in field units through the use of contact teams.

The mission of the Training Developments Branch is to research, design, produce, and maintain U.S. and Threat-related EW training materials for all USAICS proponent courses, all other TRADOC centers and schools, FORSCOM, and other major commands, as directed. The TD Branch's major efforts have been directed toward the production of the exportable Electronic Warfare Staff Officers Course (5M), designed to be presented to U.S. and NATO officers filling 5M positions on battalion through corps-level staffs.

The EW Division cannot resolve these issues from behind desks piled high with doctrinal literature. It needs input from the field, from the EW operator who sees problems with the employment of his equipment, from the EW coordinator who visualizes a more efficient information flow, and from the EW planner who recognizes shortcomings in EW operations in support of combat units. The operators, coordinators and planners are the ones who must provide tried and tested input so the EW Division can influence training developers, concept writers, tacticians and military strategists.

The current Electronic Warfare Division can be an avenue for upgrading and improving EW training to make the EW weapon system an effective force multiplier on the battlefield. Call AUTOVON 879-3047/3254 or send comments/ideas to Commander, USAICS, ATTN: ATSI-TD-EW, Ft. Huachuca, AZ 85613.

INTRODUCTION: The Army Training and Evaluation Program (ARTEP) involves a great deal of work on the part of all personnel involved. Those who undergo an ARTEP must arduously prepare for it while those producing the ARTEP work even harder to make it realistic and challenging. Each ARTEP event must be carefully orchestrated to develop situations that are typical in combat. Equipment and soldiers must be in the right place at the right time, communications must be established, simulated message traffic must be available and, above all, the "feel" of battlefield conditions must be present. The "script" for an ARTEP must be carefully coordinated to insure all actors can perform properly for a thorough evaluation. □ A realistic signals intelligence/electronic warfare (SIGINT/EW) ARTEP combines technical and tactical challenges in a simulated combat environment. While combat arms units can be readily evaluated on their performance in "combat missions" (artillery units engage mock targets, infantry units conduct offensive and defensive maneuvers, etc.), it is difficult to measure the effectiveness of SIGINT/EW units in an enemy signal environment which is usually not active in a tactical role during peacetime. Just as the infantry must conduct training in squad tactics and marksmanship prior to combat, tactical ASA units must practice working against an enemy signal environment using their procedures and tactical equipment. Failure to do so will spell disaster for SIGINT/EW operations of division support ASA units in combat. Therefore, the key to conducting an effective SIGINT/EW ARTEP is a scenario that provides a realistic signal threat environment in conjunction with the tactical evaluation of SIGINT/EW personnel. Since current publications do not address the way to conduct such an evaluation, this article will discuss the ARTEP that was designed for the 372d ASA Company (DSC).

CONDUCTING a SIGINT/EW ARTEP

by Capt. Jeffery A. Sorenson

ARTEP DEVELOPMENT

The first step in the development of an ARTEP is the determination of its objectives. Objectives vary depending upon the status of unit training and its real world mission. The 372d ASA Company had three ARTEP objectives: (1) to evaluate the ability of the 372d ASA Company to perform specified combat support missions under simulated combat conditions; (2) to evaluate the effectiveness of training on individual and platoon level performance and (3) to assess present and future training needs. After these objectives were delineated, the ASA DSC ARTEP Manual (32-57) was reviewed to determine those tasks that were relevant to its mission. (Only those tasks pertaining to aircraft sections and ATSE were not used. The 372d ASA Company does not have an organic Quick Fix aviation platoon and other division elements were not fielded during the exercise).

After determining the appropriate tasks, a sequence of events (see figure 1) was developed to insure the tasks were coordinated into a realistic combat scenario, including such events as convoy movements, NBC attacks, and platoon defensive operations to occur during simulated enemy maneuvers. To effectively evaluate each task, however, the ARTEP Manual was reorganized to list the tasks according to the sequence of events. The evaluation manual listed the event, evaluator, time, element evaluated, task, conditions and standards. Additional space was allowed for comments (see figure 2). This reorganized ARTEP Manual was extremely helpful to the evaluators because it identified the tasks in chronological order.

SCENARIO DEVELOPMENT

An OPFOR Asia handbook (based primarily upon FM 30-102) was used to create the enemy order of battle in developing the ARTEP's intelligence scenario. Once the enemy force was determined, a 96-hour mapped scenario was designed based upon historical events and OPFOR doctrine and tactics. The scenario depicted enemy battalion and company size unit locations at 12-hour intervals throughout the four-day period. Intelligence indicators (such as forward movement of artillery, resupply actions, and so on) developed for each hour of the scenario portrayed the intentions of the enemy force throughout the exercise (see figure 3). The mapped scenario and the intelligence indicators provided a baseline for the creation of enemy communications and noncommunication emanations which were to be intercepted by the forward operations platoons.

With the mapped scenario and intelligence indicators established, a team of 11 personnel (05H, 98C, 98GCM, 98GKP, 98J) began transforming the intelligence scenario into a signal threat environment. Net diagrams were designed for all of the communication emitters of an enemy division based upon current opposing force communication doctrine, equipment and tactics. Call signs, frequencies and frequency rotation schedules were generated for each

net. Message cipher systems developed for each echelon of command would provide an exercise for traffic analysis personnel. Voice and manual Morse code enemy radio traffic in the native language was then developed based upon net diagrams and enemy force indicators. Line bearings provided at the end of approximately 25 percent of the messages simulated direction-finding by intercept equipment. More than 900 enemy messages were generated for the signal threat environment.

Noncommunication emitters were also assigned to the enemy forces. The electronic intelligence (ELINT) emitter characteristics were based upon current OPFOR ELINT capabilities, doctrine and tactics. More than 400 noncommunication emissions were generated for the scenario environment. Since an ELINT simulator was not available, the enemy noncommunication signals were inserted into the threat signal environment by hardcopy AN/MLQ-24 analytical equipment displays that duplicated the signal characteristics of enemy emitters.

The entire communication/noncommunication signal environment was carefully coordinated to insure the cooperation of intercept teams in developing accurate intelligence and predicting the enemy's intentions and capabilities. For example, the activation of an enemy airfield was revealed through the analysis of voice traffic indicating movement of supplies to an unknown airfield. Subsequent requests for tasking realignment against possible airfield-associated ELINT activity were submitted by the platoon headquarters. Detailed analysis of collected ELINT intercept identified the location of the newly-established airfield in the forward area. This key indicator was correctly identified and forwarded in a tactical report to the headquarters operations platoon.

To minimize real-world compromising emanations while disseminating enemy radio traffic into the intercept vans, a signal attenuator was developed. The attenuator was designed and constructed with spare parts and cables by a forward operations platoon leader and SIGINT/EW maintenance technician. The attenuator was connected to an AN/PRC-77 radio which was used to transmit the enemy radio traffic into the platoon intercept vans. Further explanation of the attenuator system is contained in the insert.

Although simulated radio traffic and ELINT emanations were developed separately for each cryptologic discipline, the signals were all generated from the mapped scenario. In many instances, the failure of one discipline to tip-off the other or confirm collected information resulted in an incomplete tactical report. Since the exercise was designed to evaluate teamwork within the platoon, it was essential for the enemy signals to support one another. Collateral intelligence summaries were also written in advance and provided each day to update platoon personnel on enemy order of battle information that would have been collected by other divisional intelligence acquisition systems. Thus, combat information was available in many forms and the real test was the platoon's ability to analyze and derive the SIGINT battlefield picture.

EVALUATION

During the execution of the ARTEP, intelligence collection/analysis tasks and tactical soldier skills were separated into two phases, each designed for a 48-hour evaluation period. The two platoons were rotated through each phase to achieve optimum training and evaluation. Therefore, while one platoon was undergoing the intelligence collection phase, the other was being evaluated in the tactical phase.

The 48-hour intelligence collection phase consisted of preparation of field sites, responses to intelligence tasking, search

and intercept operations and preparation/forwarding of tactical intelligence reports. As discussed above, enemy communication and noncommunication signals were prescripted and disseminated according to the scenario schedule which produced a controlled signal environment for the evaluation of the platoon intelligence operations. 05H and 98G personnel were required to complete gist sheets and make transcription copies of all recorded traffic. All copied traffic was retained by the platoon and evaluated after the exercise against the complete message transmitted by the controllers. The collected traffic was evaluated on message content and proper formatting. Since operating schedules were established by the controllers, the ratio of copied messages to messages sent was determined. Similarly, ELINT personnel were evaluated on their ability to accurately identify noncommunication emissions and format tactical intelligence reports. This segment of the evaluation did not determine their ability to seek and acquire targets since a live signal environment was unavailable. However, the 372d is currently programming an ELINT simulator at a nearby naval installation to develop a live signal environment for future exercises. Traffic analysis personnel were also evaluated on their ability to develop tactical reports and order of battle information from the collected intelligence. The 98C personnel were not penalized for information missed by platoon personnel but they were evaluated on their construction of net diagrams, frequency predictions and tactical intelligence reports derived from available information. In addition, the entire platoon was evaluated on its ability to respond to mission tasking, recommend tasking adjustments, manage mission personnel schedules and transmit information to higher headquarters.

The 48-hour tactical phase included tactical site preparation, perimeter defense and site security, reconnaissance of new sites, minesweeping, an NBC attack in conjunction with a 4-hour mission oriented protection posture exercise, a decontamination exercise (personnel and equipment) supported by the division's Chemical Detachment and a day and night tactical convoy march. Small unit evaluations were conducted on the set-up, deployment and operation of the AN/TRQ-30 Manpack Receiving Radio Sets and the AN/TLQ-17 Countermeasures Set. These evaluations were based upon the platoon's ability to locate a small enemy force that used organic radio assets to transmit radio messages. An evaluation of the platoon's ability to conduct tip-off actions to determine multiple lines of bearing for direction finding of an enemy location was also conducted during this phase. In addition to the AN/VRC-46, the enemy force was equipped with the SG-886 Signal Generator and tasked with interrupting the tip-off and reporting activities of the platoon. In this manner the platoon was evaluated on their ability to implement electronic counter countermeasures procedures to counter enemy ECM. Finally, two written tests were administered to the platoon members to evaluate their knowledge of tactical SIGINT reporting procedures and enemy tactics/order of battle information.

On the final day, to enhance the realism of the exercise, all personnel participated in a 3-hour airmobile operation. After the initial pickup, the platoons were "introduced" to nap-of-the-earth flight techniques and then dropped off in a "hot" landing zone. After successfully completing infantry squad tactics against enemy forces (platoon elements of an infantry company), personnel were then ferried to an unknown location and required to conduct land navigation to the rendezvous point before departing for garrison.

CONCLUSION

The ASA Division Support Company must be able to coordinate operations, collect intelligence, conduct analysis and report intelligence products in a combat environment which will probably not be conducive to normal collection operations. This must be accomplished in order to provide the required intelligence support to division operations to insure that the battle is not lost. To fulfill this mission, tactical ASA units must undergo realistic field exercises which provide them an opportunity to evaluate their procedures and methods under combat conditions. Despite the inherent difficulties in developing a realistic tactical ASA ARTEP, the personnel of the 372d ASA DSC have produced

and executed an exercise in tactical SIGINT/EW operations that effectively evaluated the company's ability to work under arduous conditions and perform its mission. It was difficult to assemble and coordinate, but the end result was a field exercise which was comprehensive, challenging, and above all, professional.

EVENT****
FRIDAY 3 OCTOBER 1980:
1300 tactical brief
1500 meeting w/plt leaders and plt sergeants
MONDAY 6 OCTOBER 1980:
1. 0530 issue weapons, masks, and C-rations
2. 0600 operations officer departs for range control
3. 0630 controllers and headquarters operations depart for field (A-1 Kahukus) Control site
4. 0700 2d Operations Platoon departs for hill 534 Vicinity 010984
5. 0715 1st Operations Platoon departs for vicinity 004980
6. 0730 Service Platoon departs for vicinity 020977
7. 0845 2d Operations Platoon resource status report to Headquarters Operations
8. 0900 Control Message to 2d Operations; 1st Operations Platoon Resources Status Report to Headquarters Operations
9. 0915 Service Platoon reports to Headquarters Operations; Control Message to 1st Operations Platoon (TLQ-17/TRQ-30)
10. 0945 Maint support message to Service Platoon for contact team to 1st Operations
11. 1045 TLQ-17 Small Unit Evaluation begins hill 565 vicinity 012972 (1st Operations)
12. 1100 TRQ-30 Small Unit Evaluation begins hill vicinity 014975 vicinity 021967 (1st Operations)
13. 1200 Aggressor jamming begins
14. 1300 Aggressor jamming ends
15. 1400 changeover of personnel in small unit evaluation; Communication Electronic contact team alerted to deploy to Hill 554 vicinity 015982

figure 1.

EVENT: 7A
EVALUATOR: Traffic Analysis Technician
TIME: 6 October 0900
ELEMENT: 2d OPS
TASK: Respond to mission tasking (1-J-6, 2-E-6)

CONDITIONS: Position tasking received from operations center and technical information/data furnished

STANDARDS:
1. Tasking requirements analyzed and mission promptly assigned to appropriate team
2. Operations center is kept advised of mission progress and equipment status
3. Recommendations for target adjustments and tasking changes are made to the operations center when necessary throughout the entire phase
4. If necessary teams are realigned to accomplish the mission
COMMENTS:

figure 2.

Indicators:
0900 Location of enemy troops in forward assembly areas. Movement of noncombatants out of the combat zone
1000 Increased activity in rear areas
1100 Recon and destruction of obtacles that are part of OPFOR defensive system
1200 Begin deployment of artillery assets forward
1300 Abnormal amounts of logistical traffic on command nets
1400 Engineer units locations near FEBA and echeloned to the rear for removal of obstacles
Increase of OPFOR air reconnaissance
1500 Location of maintenance parties on lateral routes
Drills and rehearsals conducted by forward elements
1600 Begin dummy traffic to obscure forward movement of 3d Regiment
1700 Regiment and division medical stations involved with movement forward
1800 Movement of 3d Regiment along west boundary
1900 Increase of enemy counterbattery radars discovered in forward areas

figure 3.

PROFESSIONAL READER

New Dimensions in Military History An Anthology Edited by Russell F. Weigley, published by Presidio Press, San Rafael, Calif., 1975, $14.95.

New Dimensions in Military History is an anthology of papers presented in the course conducted for future leaders of the U.S. armed forces by the U.S. Army War College. The main purpose of the course was to encourage "historical mindness" rather than to impart a specific body of knowledge.

The first three years of the New Dimensions course coincided with the United States' freeing itself from involvement in Indochina. Americans often assume that no war in American history could equal the unpopularity of the war in Vietnam.

According to Harry L. Coles, professor of American military history at Ohio State University, "the major wars of the U.S. rate historically as follows: (No. 1 the most popular, No. 8 the least popular.)

1. World War II
2. World War I
3. Spanish-American War
4. Korean War
5. American Revolution
6. War with Mexico
7. War of 1812
8. Vietnam War
9. Civil War*

The Civil War was put last and asterisked because it obviously was a special case." The historical records suggest that the unanimity of popular support for an American war is directly proportionate to the war's shortness and to the consistency of the success of American arms.

This book fields the theory that all wars tend to be unpopular; but it is also true that unconventional wars are distateful to the American public. When an opponent is not similarly equipped and trained, it is unconventional and gets in the way of effectively executing the war at hand.

New Dimensions examines the context of military history for the most part as factors of warfare; keeping its proper political, economic, and social perspective, while measuring its impact on American society.

This anthology has us opening pages to the thoughts of Machiavelli, who interprets the nature of military history by, "opening a new line of inquiry into the nature and functions of the state and the relations between warfare and politics and viewing soldiering as a branch of citizenship and warfare as a branch of politics."

The good thing about **New Dimensions** is that several historians use their writing of the military subject an an espousal of their theories. Here the reader has 19 theorists from which to base ideas.

Unfortunately this text also includes historians who focus attention on the drama of battle or the details of a campaign at the expense of other determining factors that probably lead to a superficial view of what actually happened.

The essential point conveyed is that military history serves a didactic purpose—that of theory and fact.

Unlike most text reading, the experts here, all university professors, write in absence of high-level boredom, delivering an extremely interesting chronical of multicultural, multiethnic, and multinational issues in terms of military social cohesion. Military social cohesion is comparable to the "feudal" system. This means a high military subordination cannot go with a low military cohesion. Thus, high military subordination and low social cohesion may explain the success of some feudal armies. This was most evident in the story of Emperor Justinian and his successors regaining Carthage, Spain, and Italy, and the destruction of Sassamid Persia, at social cost which helped to explain the rise of Islam in the next century.

The fundamental element of this book, was best described by Ivan S. Bloch, professor and author, as "New military technologies, economic collapse, and political and social revolution." Another military historian, Horatio Andreski, stresses it as "political, military organizational, and technological variables." After reading it is clearly understood technology will always be a factor that complicates equations between armed forces and societies. And it [technology] has a way of not declining in direct ratio to a state's social decline.

A big issue touched in this book is the reestablishment of some type of control over international violence, defining terrorism as becoming a social institution.

Intelligence and operations were briefly covered and best viewed as "anathematized passivity." The consensus was that mission took precedence over intelligence estimates. Deliberate or passive concepts were often deemed to be "unmilitary." Historical, strategic, demographic, and economic considerations were paramount to the psychological factor.

The volunteer conscript army and single-nation state were lightly addressed on a racial and political level, but much more thought was given to the controversial mercenary.

Machiavelli criticized mercenaries as being militarily ineffective. Termed "condottieri," they were sited as useless and dangerous. The best known corps of mercenaries was the French Foreign Legion, formed by King Louis Phillipe in 1831 to serve in Africa. This group was composed almost exclusively of aliens who had patriotic allegiance to France.

This anthology concludes with a dynamic commentary about

armies being a reflection of societies. A plausible discussion of the intersection of the history of foreign policy with military forces, and the summation that **New Dimensions in Military History** is a work identifying the need for historical awareness.

2LT Karen Mackey
Co A, USAICS

American National Security: Policy and Process, by Amos A. Jordan and Col. William J. Taylor (forword by Gen. Maxwell D. Taylor), Johns Hopkins University Press, 1981, pp. 618, $30.00.

This large, general textbook on American national security and its related international aspects is divided into five parts which are subdivided into 24 chapters. Each chapter contains a recommended reading list of books and articles. The book also contains a list of abbreviations (ABM—anti-ballistic missile—to WWMCCS—worldwide military command and control system), a notes-to-each-chapter section, and a generally comprehensive index.

The five parts topics are as follows: I. National Security Policy: What is it and How Have Americans Approached it? II. National Security Policy: Actors and Processes, III. Issues of National Strategy, IV. International and Regional Security Issues, and V. Approaches to National Security for the 1980s.

In part II, Chapter 7, Intelligence and National Security, covers the various intelligence-gathering agencies within the U.S. Government: CIA, DIA, and NSA; Departments of Defense, Energy, State, and Treasury; Drug Enforcement Administration; and the FBI. Chapter 8, The Role of the Military in the National Security Process, gives a general synopsis of the history of the military's influence in all areas of national security policy and its involvement in domestic security. Included in this chapter are comments on the "defense establishment" and "the military-industrial complex."

In Part III, Chapter 11, Nuclear Strategies, is an excellent overview of nuclear strategy policies and programs. This chapter contains tables of data on offensive/defensive U.S. and Soviet strategic force levels and NATO/WARSAW Pact long- and medium-range nuclear systems for the European theater. In addition, this chapter contains figures showing the U.S. submarine-launched ballistic missile warning sites in North America and the U.S. intercontinental ballistic missile warning sites.

In part IV, Chapter 16, The Soviet Union, covers the relationship between Soviet foreign and military policy and capabilities (1945-80) and U.S. national security interests. The Soviet "threat" is also analyzed.

This well-written book should be read by everyone who has an interest in the security of the United States.

Richard A. Banyai
DTD, USAICS

Intelligence Requirements for the 1980s: Analysis and Estimates, Edited by Ray Godson, Washington, D.C., National Strategy Information Center, Inc., 1980, 223 pages.

Ray Godson has done an exemplary job as editor of this book of eight papers prepared by participants in the Consortium for the Study of Intelligence's Colloquium on Analysis and Estimates held in the fall of 1979. Authors of papers presented in the book include David S. Sullivan, William E. Colby and Richard E. Pipes.

Michael Handel prepared an excellent paper entitled "Avoiding Political and Technological Surprise in the 1980s" which should be read by all intelligence analysts, particularly those with duty at DIA and CIA offices. Handel states "The intelligence community cannot afford to be passive: it must pursue subjects that it perceives to be important, regardless of consumers' requests." He adds, "Most intelligence failures occur because intelligence analysts and decisionmakers refuse to adopt their concepts to new information." He further stresses that analysts should not allow themselves to become victims of "group think," as compromise in analysis will only hurt more in the long run than the truth.

Handel states that better intelligence will be needed to counter terrorism and that such collection cannot solely rely on technical means, but it must include HUMINT collection. Economic problems of foreign countries will also have to be analyzed, particularly in relation to world energy supplies.

There is an interesting chapter consisting of papers presented by Edward J. Epstein and Fredric S. Feer on foreign government deception and how the analyst should be aware of hostile deception plans. Feer states that the goal of a counterdeception program is an "intelligence process which is capable of delivering worthwhile intelligence judgments in the presence of deception."

Former Director of Central Intelligence William Colby's paper along with Richard Pipes' on recruitment, training, and incentives for better analysis, are of particular interest to all intelligence organizational managers responsible for recruitment and retention of intelligence analysts. Colby states that the challenge of the intelligence profession today is the absorbtion of the mass of information which forces itself upon the analyst. The former DCI adds "neither bubbling optimism nor cynical pessimism are appropriate, but an ability to communicate, orally and in writing" is needed by the analyst, "if the intelligence process is to function internally and serve its customers." He adds that the training process is directly related to the organizational and conceptual role of the

analyst. Colby states "I believe that this (process) is moving toward an integrated intelligence officer approach, whereby each participant in the process must understand the entire process and not satisfy himself with a mere motion on the assembly line as the product passes him."

In the ensuing discussion also printed, the means for better recruitment and retention, will not be monetary renumeration, but rather of job satisfaction—of striving to come up with answers for ever more difficult questions posed to the intelligence community.

All in all, this collection of essays should be required reading by all individuals concerned with intelligence production and management of intelligence assets from the human perspective, particularly that of the intelligence analyst.

2LT Eric K. Naeseth
525th MI Group

The Luftwaffe in the Battle of Britain, by Armand van Ishoven, Charles Scribner's Sons, New York, 1980, 128 pages, $19.95.

The Battle of Britain has long been considered one of the major turning points of WWII. The story has been retold hundreds of times in newspapers, books, films, and television programs. For the first time ever—the story is seen through German eyes.

In the Luftwaffe in the Battle of Britain, reknowned author Armand van Ishoven presents a totally new dimension to a previously one-sided epic. This book is an exceptional account of the Battle of Britain in that it chronologically recreates the changing fortunes of the German Luftwaffe from expectations of a quick victory to the realization of defeat. Armand van Ishoven's book features an extensive collection of eyewitness accounts and rare German photographs which add luster to a well developed book.

The result is an interesting look at what it was like to do battle with the R.A.F. during "Britain's finest hour." The author's novel approach will appeal to readers with a historical interest and is an absolute must for military enthusiasts.

Capt. Al Leal
DTD, USAICS

The Man Who Kept The Secrets, Richard Helms and the CIA, by Thomas Powers, Simon and Schuster, 1981 paperback printing/edition, $3.50, 508 pages.

This is an excellent book on the CIA and professional life of Richard Helms. The book shows how Mr. Helms advanced through the CIA eventually becoming the director. The book presents a fair and balanced picture of a man who spent his professional life helping to build the Agency.

The book discusses controversial men, events and issues, plus their relationship to one another. It is interesting, absorbing, and well worth the purchase price. In addition, the book contains an excellent Appendix, Notes Section and Bibliography.

The book's only weakness is that it does not have a table of chapter contents. Some of the chapters could easily have been titled: Chapter 4, Secrecy and Trust; Chapter 5, Wisner and Dulles; Chapter 6, Richard Bissell; Chapter 7, The Bay of Pigs; Chapter 8, Governmental Sponsored Killings; Chapter 9, The Kennedy's and Efforts to Kill Castro; Chapter 10, John McCone; Chapter 11, Vietnam; Chapter 12, Helms-Nixon and the Vietnam War; Chapter 13, Chile; Chapter 14, Watergate and the CIA, and Chapter 15, The Final Exposure. A good table of contents would easily sell this book to an interested reader.

LTC John M. Rooney
VII Corps

Sherman: A History of the American Medium Tank, by R.P. Hunnicut, Taurus Enterprises, Belmot, CA, 1978, 576 pages, 1502 illustrations, $45.00.

This massively illustrated work is a compendium of technical and historical data related to the famous M-4 ("Sherman") tank, produced from February 1942 to the latter part of 1945. The author touches lightly on the battle history of the Sherman, though this subject is dealt with adequately in terms of the overall plan of the book. The work is a hugh success in terms of describing the evolution of a fighting vehicle that was still seeing active service as late as the October 1973 Yom Kippur War (both Israel and Egypt made use of it).

The Sherman did not emerge full-blown from someone's fertile head, mature and ready for battle. Its antecedents can be carefully traced through prototypes well back into the 1920's and as far back as 1919 in the brilliant designs of J. Walter Christie. Christie, for instance, helped to move the American armored vehicle industry to attempt tanks more modern and advanced than those being produced by France and England. But in spite of the contributions of Mr. Christie, the vehicle that was ultimately to emerge as the M-4 was the product of many hands, minds and much trial and error between the end of World War I and 1942.

One of the most difficult decisions made in connection with the evolution of the Sherman was the decision to mass-produce the M-3 in 1941. This "compromise" fighting vehicle mounted a 75mm gun, more powerful than the 37mm gun in the M-2, but lacked an appropriate turret. The M-3 was a strange looking tank but its gun was what the British forces in North Africa needed at Gazala to stem the German offensive at the critical point. "Rommel himself (felt) shock at the first encounter with the M-3 and its 75mm gun."

Not only was Suez saved through the partial agency of this vehicle, but many valuable lessons were learned that were directly responsible for saving further production and developmental time loss in mass-producing the Sherman. When the Sherman came into production in mid-1942, it took only eight months before it could be deployed in sizeable numbers, a remarkable achievement.

The Sherman fitted the conditions of the European and Pacific battlefields due to its mobility, reliability, relatively narrow width and weight which allowed it to use European bridges and roads, as well as being brought across the beaches of the Pacific Islands. The Japanese Commander, Lieutenant General Ushijima recognized this when he said "the enemy's power lies in his tanks. It has become obvious that our general battle against the American forces is a battle against their M-4 tanks."

Even the best weapon has some drawback and the author calls attention to the Sherman's weakest point, its 75mm gun. Eventually, the 76mm, a higher velocity weapon, came into widespread use on the Sherman, but the author suggests that "the ideal solution would have been the adoption of the British 17 pounder as the standard Allied gun." The author acknowledges this would have required a larger turret and it is a solution which the Israelis have gone to with their M-50 turret mounted on "Super Shermans." The Israeli's have mounted 105mm's in the "Isherman" and other high velocity arms as well as going to a widetrack horizontal volute spring suspension.

It is amazing that while the Sherman has been out of the active U.S. Army inventory since 1956, it continues to roll along the roads of warfare. The author mentions in an aside that Shermans even engaged in T-62s in the Yom Kippur War. Ironically, the Sherman began its career in war on the other side of Egypt in 1942, helping to defeat the Axis forces.

1LT Timothy N. Hunter
38th Infantry Division
Indiana Army National Guard

Countercoup: The Struggle for the Control of Iran, Kermit Roosevelt, McGraw-Hill, N.Y., 1979, 210 pages, $5.95.

Countercoup: The Struggle for the Control of Iran provides an insider's description of the events surrounding the ouster of Iranian Prime Minister Mohammed Mossadegh in 1953. Woven into 210 pages of reminiscences is the story of Kermit Roosevelt's personal involvement. Despite some chronological disjointedness, the book is easy reading and provides details of the planning and conduct of the operation.

Roosevelt's description of the situation and events in Iran contradicts the popular myth that the CIA installed Mohammed Reza Shah Pahlavi on the Peacock Throne against the will of the Iranian people. As he explains it, the Iranian populace and the army, by demonstrating their support for the Shah, forced Mossadegh from office and allowed the Shah to install a loyal prime minister and establish a stable government. According to Roosevelt's account, CIA involvement was limited to delivering assurances of American and British support to the Shah, and providing some communication and coordination among the Shah's supporters.

In spite of Roosevelt's penchant for distracting digressions into triviality, the book is worthwhile reading for those interested in the history of Iran. Moreover, it provides some—possible disturbing—insight into the decision-making process within the American government.

Robert E. Moorehead
OPFOR Branch, USAICS

The KGB: The Eyes of Russia, by Harry Rositzke, Doubleday, New York, 1981, $14.95, 295 pages.

Rositzke, a former Central Intelligence Agency officer specializing in Soviet affairs, has written an interesting insight into what he claims are "the secret operations of the world's best intelligence organization." Though the KGB is a tightly run and controlled organization, after reading Rositzke's work, a few chinks and cracks appear in the intelligence service's armor.

The author calls upon his career with the CIA spanning 24-years for some of his input. He includes accounts of already well-known espionage cases and blunders in which the KGB was involved, including Colonel Rudolph Able, the Soviet intelligence officer illegally caught in New York in 1957, as well as the Rosenburgs and Kim Philby's penetration into the hierarchy of British Intelligence.

To a great extent, Rositzke's work is a repeat of earlier texts on the KGB to include John Barron's 1974 book, **KGB: The Secret Work of Soviet Agents.** By contrast, Barron's book was far more detailed and better footnoted, therefore a much better open-source reader on the KGB. One cannot help but believe Rositzke has tried to get in on the coattails of the best-selling true-to-life espionage story of Christopher Boyce which resulted in the well-known book, **The Falcon and the Snowman.**

The current text on KGB operations includes its section on "wet" operations, (i.e., assassinations). One memorable quote from this section is where Rositzke writes "The run-of-the-mill intelligence officer does not make a good hit man." A number of Soviet failures in this area leaves no doubt.

One of the better chapters of the book, "The Moscow Triad," covers the historical development of Soviet intelligence over the years, the Triad being the KGB, the GRU (Soviet Military

Intelligence), and Comintern. The author points out that after the removal of Comintern from intelligence operations per se (it still gathered political intelligence on local Communist parties in foreign countries), the GRU and the KGB were the principal outlets for Soviet espionage. Rositzke argues that for all practical purposes the GRU now is an arm of the KGB due to the fact that a number of GRU officers are really KGB agents. Additionally, he claims any serious operations the GRU starts will get their final blessing from the KGB's Moscow Center.

The retired CIA officer states that the major focus of the KGB covert collection program in the U.S. is centered on industrial espionage: the collection of information on commercially restricted or military classified equipment, classified research and development, and manufacturing processes. Rositzke points out that because of the Soviet technical collection capabilities, the human source will not be used so much to herald the outbreak of war, but rather for the foregoing reasons already stated.

However, Rositzke has included a contradiction within his book that the KGB is the best intelligence organization in the world. The contradiction comes with the statement "More Soviet agents have been caught in the postwar world than have agents of all other services, Western or Eastern, combined, even a professional Soviet intelligence officer, being human, can be careless or stupid."

Nevertheless, the KGB and its sister intelligence services in the Eastern Bloc countries and Cuba will be a factor to be reckoned with by Western security organizations, both in peacetime as well as in time of war. Espionage activities involving Polish Intelligence in California and the passing of classified materials by a U.S. Air Force officer to the Soviet Embassy in Washington in recent months bear this out.

2LT Eric K. Naeseth
525th MI Group

Rolling Thunder

by James Clay Thompson, The University of North Carolina Press, Chapel Hill, N.C., 199 pages, $14.00/$6.50 paperback

Rolling Thunder was the codename assigned by the U.S. to the air war waged against North Vietnam during the 1965-1972 time frame. James Clay Thompson's account of this campaign probes deeply into the policy decisions responsible for the failure of the world's mightiest power to bomb a third rate country into submission.

Rolling Thunder is a case study based on the author's first hand observations as an intelligence analyst during the Vietnam War. This book serves to underscore the point that a war, albeit a limited one, cannot be won by bureaucrats 11,000 miles away who depend on complex formulas and organizations to achieve their desired goals.

To understand why the U.S. failed in Vietnam one needs to address the political motivation for American actions on a historical basis. The author asks serious questions and supplies the answers through his chronological development of the air war against North Vietnam from its origins to the end of American involvement.

Rolling Thunder is a well written and easy to read book which will appeal to modern day historians who appreciate an objective look at what hindsight will reveal to be the biggest outlay and waste of money, manpower (lives) and material ever made by this country.

Capt. Al Leal
DTD, USAICS

In Memoriam

This eulogy is written in loving memory of our late editor, Ray Levesque. Ray passed on recently, heading in a very southerly direction, to take up duties in Panama. Alas, he is now beyond the ability of our staff's necromancer to recall, as he is already undergoing purgatory enroute at the Defense Language Institute in Monterey, California. (We should be so lucky; we've heard all about those yachts and condos!)

Ray was loved and appreciated by all of us for his guidance, professionalism, and perverse sense of humor. We'll miss him.

"Lament for an Editor"

by Herb Gilbert

Alas, our chatty, chubby cherub
has chosen challenging
changes in a chancy chapter
as cheerfully as a chirping
chimpanzee chewing chestnuts with childlike chicanery,
all to the chagrin of this chapfallen character.

EW TRAINING
electronic combat readiness, a dynamic evolution

by Robert C. Van Kirk II

Electronic Warfare training in the U.S. Army has been on a definite upswing for the last four to five years. The impetus was provided by an analysis of the Middle East War of 1973 in which the Soviet concept of EW, Radio Electronic Combat was employed. The realization of THREAT capabilities and how EW can dramatically influence the outcome of ground force combat operations prompted a thorough review of the U.S. Army's posture in regard to EW awareness, operational readiness and combat effectiveness.

As a result, an entirely new architecture for the Army's overall Intelligence and Electronic Warfare system was drafted. The goal was to merge traditional Army Security Agency and Military Intelligence functions (e.g., Signals Intelligence/EW and Human Intelligence/Counterintelligence) with ground surveillance radars into single organizational structures—Combat Electronic Warfare and Intelligence units—in order to provide more efficient and effective tactical all-source intelligence, EW and Operations Security support to U.S. Army field commanders.

At the same time, the Army accelerated major research and development and Quick Reaction Capability programs (e.g. TRAILBLAZER, TACJAM) designed to produce and field a new generation of sophisticated IEW collection and jamming systems.

Subsequently, the Army embarked on a course of action to take advantage of industry's state-of-the-art technology. The ultimate goal is to integrate all-source intelligence collection management, analysis and reporting systems (e.g. ASAS, TCAC, IISS, ITEP) with fire direction control systems (e.g., TACFIRE).

During 1981, the development of EW as a weapon system, a force multiplying element of combat power, gained substantial momentum. New terms (e.g., electronic combat, defensive EW, C^3M and protect C^3) were introduced. New training and doctrinal literature materials stressed the necessity of fully integrating EW with maneuver and fires and new concepts provided factual and definitive information on how to effectively interface G2, G3 and support staff elements in order to plan, target, and execute electronic warfare missions today.

General officers continue to stress the need to work EW from both the top-down and bottom-up.

TOP-DOWN ACTIONS

Top-down actions have included the incorporation of EW and REC operations for both blue and opposing force elements at the National Training Center (NTC) at Fort Irwin, Calif., and the QRC action for PIRAHNA, AN/VLQ-4(T), VHF ECM appliques which, ultimately will double communications jamming resources Army-wide.

BOTTOM-UP ACTIONS

Extremely well motivated and highly dedicated MI/EW officers, noncommissioned officers and enlisted personnel continue to prove the CEWI concept can and does work. They have made it work, and at times without a full suite of programmed materiel and supporting doctrine.

This latter fact is of extreme significance. Though a full suite of programmed material and supporting doctrine is most desirable and is of utmost concern to all personnel, perhaps there is a benefit in doing the job with less. After all, a basic premise of the Army is that combat units should "train as they must fight." THREAT doctrine and demonstrated THREAT capabilities, alone, indicate that U.S. forces will operate at less than full capacity.

Let's face it! In combat few tactical units will have "a full

suite of EW materiel" for very long! And, Doctrine? That's guidance. It's on the street and more is following! And, Training? That's experience and learning! It's available and it's being improved! And War? That's where materiel, doctrine and training are all brought together to outmaneuver, kill and overwhelm enemy forces to the point they can no longer resist.

When and if war comes, our combat units will do all they can do with what they have. USAICS job is to insure tactical units have the best EW support available to win the first battle whenever and where ever it comes.

To this end, the TRADOC community as a whole, and USAICS in particular, is taking extraordinary action to get sound EW doctrine and training materials into the field to support today's operational requirements.

ELECTRONIC WARFARE OFFICE

In November 1980, USAICS recognized the need for extraordinary action and formed an EW Office within the Directorate of Training Developments. Its purpose was to serve as the focal point for EW within the entire command, while performing its primary task of producing standardized EW training materials for use throughout the TRADOC community as well as within all tactical major commands, e.g., Forces Command, and U.S. Army Europe.

In view of those realities which now exist in the field and which will most likely prevail in war, the EW Office initiated a more pragmatic approach in the EW training base:

(1) To teach EW personnel "How to Think" based on principles, considerations and procedures; and,

(2) To teach them "How to Do" based on mission, enemy, terrain and troops. Although EW doctrine is based on best case situations with all units at full strength, contingency plans developed by combat units and EW training are based on resources available to do the job. The pragmatic educational philosophy and training methodology outlined above ensures our EW personnel will be able to cope with any combat situation. They have been extensively used in developing both defensive and offensive EW training materials described below.

DEFENSIVE EW TRAINING MATERIALS

Recognizing that protection of our own C^3 systems is top priority, the EW office, in coordination with the U.S. Army Signal Center and School, undertook its initial task which was to produce defensive EW training materials based on envisioned THREAT capabilities. Four defensive EW blocks-of-instruction have been produced and are currently being integrated into curriculums (i.e., officer basic, officer advanced, precommand and advanced NCOES courses) at all TRADOC centers and schools.

EW STAFF OFFICER COURSES (ASI 5M) FIRST ACADEMIC WEEK

Monday	Course Introduction C-E Principles Electromagnetic Capabilities
Tuesday	Terrain Analysis Terrain Practical Exercise (PE)
Wednesday	U.S. Combat Communications U.S. C-E PE Threat Communications Threat Communications PE
Thursday	Threat Noncommunications Radio Electronic Combat (REC)
Friday	ECCM ECCM PE Examination Critique

An exportable EW Staff Officer course (ASI 5M) has also been developed for USAREUR, FORSCOM, and other MACOM's. This course includes one academic week of instruction on Defensive EW. These materials provide standardized instruction for all Army officers and noncommissioned officers serving on the staffs of battalions, brigades, divisions and corps. They have been designed, specifically to ensure all of our combat forces can survive, fight and win in an extremely hostile EW environment.

OFFENSIVE EW TRAINING MATERIALS

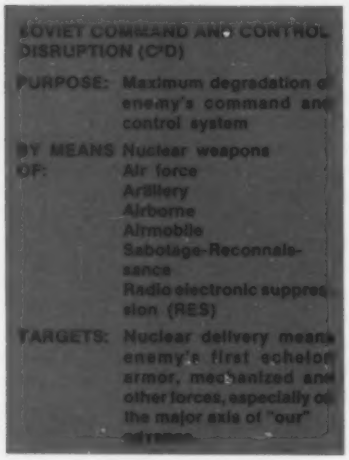
EW training developers were confronted with what seemed at times to be an insurmountable problem when developing offensive EW training materials. They had to virtually "go back to the drawing board" in order to determine the best manner in which to organize and employ the Army's EW "weapon system" as a force multiplier on the battlefield. However, in acknowledging the criticality of both timely intelligence support to tactical commanders and EW combat support to combined arms operations, EW training developers refrained from "reinventing the wheel" and stressed the need "to take advantage of lessons learned." At the same time, they had to remain cognizant of evolving U.S. concepts, (e.g., C^3CM, Counter C^3, Airland Battle), which are designed to enhance the U.S. Army's ability to function as a combined arms force taking full advantage of all means of combat power provided in joint operations.

Detailed research and analysis performed in developing defensive EW training materials, indicated the degree to which at least one of our potential adversaries has honed its offensive EW weapon system. A comparative analysis of Soviet REC and U.S. EW doctrines, seemed to be the most beneficial point-of-departure for establishing sound terms of reference upon which to base all offensive EW training.

SOVIET REC vs U.S. EW

For many years Soviet REC has been espoused as an overall doctrine for combined arms warfare. EW training developers approached the comparative analysis task with several basic questions. Does REC equal EW? Can REC be more than EW? Doesn't the term "Radio Electronic" Combat impose a limitation factor? Is REC synonymous with C³CM? Is EW synonymous with C³CM? We'll let you decide.

The 1978 volume of Soivet Military Encyclopedia states under its definition of "Command and Control Disruption—C²D" (NARUSHENIE UPRAVLENIYA) that: " . . . C²D (measures) can be carried out simultaneously in all aspects of combat operations in order to impede the enemy's use of his forces, weapon (systems) and military (combat) equipment to the maximum extent possible. Nuclear weapons are considered the primary means for destroying the enemy's command and


SOVIET COMMAND AND CONTROL DISRUPTION (C²D)
PURPOSE: Maximum degradation of enemy's command and control system
BY MEANS OF: Nuclear weapons
Air force
Artillery
Airborne
Airmobile
Sabotage-Reconnaissance
Radio electronic suppression (RES)
TARGETS: Nuclear delivery means
enemy's first echelon armor, mechanized and other forces, especially on the major axis of "our" advance

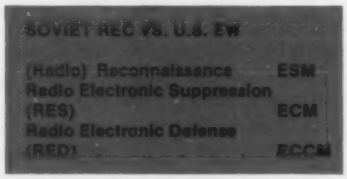
control systems. Air Force, artillery, airborne, air mobile, and sabotage-reconnaissance groups are also given C²D missions." It goes on to say that:

. . . "an effective means of C²D is Radio Electronic Suppression, which can jam communications, noncommunications (radar), radio navigation and other electronic facilities working in the RF range for extended periods of time."

The same publication provided us the following definition for REC and equations for REC and U.S. EW terms:

"REC is a set of measures, conducted for purposes or reconnaissance and subsequent Radio Electronic Suppression of the enemy's C-E systems, as well as for the Radio Electronic Defense of our own C-E systems. REC measures are carried out in conjunction with the destruction of the enemy's C-E facilities, principally by the use of anti-radiation weapon systems."

"(Radio) Electronic Warfare, (Radio) Electronic Countermeasures and (Radio) Electronic Counter-countermeasures are terms which are synonymous with Radio Electronic Combat, Radio Electronic Suppression, and Radio Electronic Defense."

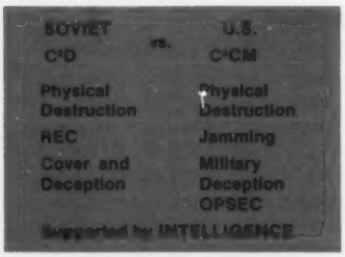


The reference to "reconnaissance and subsequent Radio Electronic Suppression" provided us with an equation to "Electronic Warfare Support Measures. Also, a lethal capability is indicated with the reference to "anti-radiation weapon systems."

It seemed apparent that a direct relationship exists between REC and EW, and more importantly, that REC is a subelement of something much larger; namely Command Control Disruption (C²).

Review of other open-source unclassified literature provided further insight. Intelligence organizations at high levels of command (i.e., FRONT, Army) support the Soviet's overall combat operations, while organic reconnaissance units and target acquisition resources are provided lower echelon units (e.g., Division, Regiment) to support their individual battles. At the same time, major Soviet offensives are supported by extremely elaborate, well planned and meticulously executed "cover and deception" plans.

Thus, but superimposing C²D components—physical destruction and nonlethal attack means (i.e., REC), which are provided organic reconnaissance/target acquisition resources, on a supporting foundation of Cover and Deception and Intelligence, we were provided with a Soviet model of C³CM or Counter C³. NOTE: "NARUSHENIE UPRAVLENIYA" can be translated simply as "Control Disruption;" "Command and Control Disruption" when troops and weapon systems are considered Counter C³ if the means of C² are taken into consideration; or, C³CM when all aspects of combined arms warfare (i.e., C²D, Cover and Deception and Intelligence) are envisioned. We then compared the Soviet C²D model with the evolving U.S. C³CM concept.



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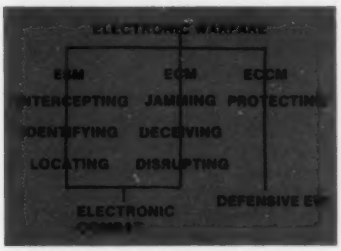

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SOVIET REC vs U.S. EW

For many years Soviet REC has been espoused as an overall doctrine for combined arms warfare. EW training developers approached the comparative analysis task with several basic questions. Does REC equal EW? Can REC be more than EW? Doesn't the term "Radio Electronic" Combat impose a limitation factor? Is REC synonymous with C³CM? Is EW synonymous with C³CM? We'll let you decide.

The 1978 volume of Soivet Military Encyclopedia states under its definition of "Command and Control Disruption—C²D" (NARUSHENIE UPRAVLENIYA) that: " . . . C²D (measures) can be carried out simultaneously in all aspects of combat operations in order to impede the enemy's use of his forces, weapon (systems) and military (combat) equipment to the maximum extent possible. Nuclear weapons are considered the primary means for destroying the enemy's command and

SOVIET COMMAND AND CONTROL DISRUPTION (C²D)

PURPOSE:	Maximum degradation of enemy's command and control system
BY MEANS OF:	Nuclear weapons Air force Artillery Airborne Airmobile Sabotage-Reconnaissance Radio electronic suppression (RES)
TARGETS:	Nuclear delivery means enemy's first echelon armor, mechanized and other forces, especially on the major axis of "our" advance.

control systems. Air Force, artillery, airborne, air mobile, and sabotage-reconnaissance groups are also given C²D missions." It goes on to say that:

. . . "an effective means of C²D is Radio Electronic Suppression, which can jam communications, noncommunications (radar), radio navigation and other electronic facilities working in the RF range for extended periods of time."

The same publication provided us the following definition for REC and equations for REC and U.S. EW terms:

"REC is a set of measures, conducted for purposes or reconnaissance and subsequent Radio Electronic Suppression of the enemy's C-E systems, as well as for the Radio Electronic Defense of our own C-E systems. REC measures are carried out in conjunction with the destruction of the enemy's C-E facilities, principally by the use of anti-radiation weapon systems."

"(Radio) Electronic Warfare, (Radio) Electronic Countermeasures and (Radio) Electronic Counter-countermeasures are terms which are synonymous with Radio Electronic Combat, Radio Electronic Suppression, and Radio Electronic Defense."

SOVIET REC VS. U.S. EW

(Radio) Reconnaissance	ESM
Radio Electronic Suppression (RES)	ECM
Radio Electronic Defense (RED)	ECCM

The reference to "reconnaissance and subsequent Radio Electronic Suppression" provided us with an equation to "Electronic Warfare Support Measures. Also, a lethal capability is indicated with the reference to "anti-radiation weapon systems."

It seemed apparent that a direct relationship exists between REC and EW, and more importantly, that REC is a subelement of something much larger; namely Command Control Disruption (C²).

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REC		Jamming
Cover and Deception		Military Deception OPSEC
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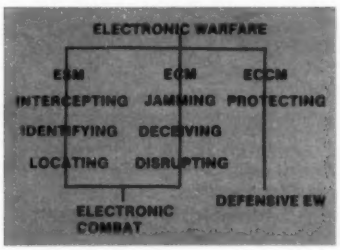

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OPSEC	DEFEND	DEFENSIVE EW (ECCM)

Supported By
INTELLIGENCE
SIGINT
HUMINT
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etc.

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CLOSING THE LOOP

With these terms of reference established, EW training developers set out to accomplish a most difficult task—"closing the loop" between training developers, combat developers, concept and doctrine writers, and the users—tactical commanders and their staffs.

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"PRINCIPLES OF EW SUPPORT"

1. "MAXIMUM UTILIZATION OF RESOURCES"—Just as with artillery, EW resources should never be held in reserve. They must be used if full combat power is to be achieved.

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4. "FLEXIBILITY"—EW assets must have the flexibility to respond to tasking from higher echelons when working in the forward AO's of battalion task forces and committed brigades. Therefore:
a. Centralized control and decentralized execution is required.
b. Alternate communications routing through various intelligence/EW nets as well as operations and command nets should be planned.
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d. The integrity of EW teams, sections, and platoons should be maintained, if possible, to allow for an effective span of control, reduced support and communications requirements, and greater redundancy in communications capabilities.

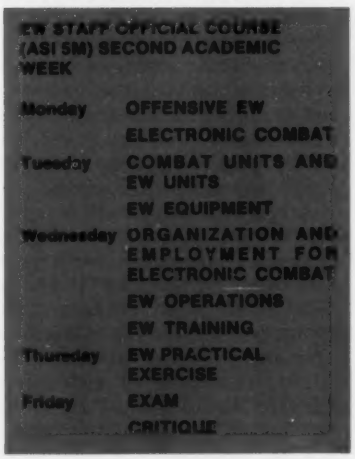
5. "CONTINUITY"—Of EW operations in degraded mode situations (e.g., friendly C³I links are inoperative/jammed, or the centralized control authority is destroyed) must be maintained.
a. SOP/preplanned targets should be available for all EW teams.
b. Leap-frogging resources should be planned.
c. Back-up coverage of high priority targets for intercept/DF and COMJAM should be standard policy.
d. EW training should be based on worst case situations; and . . .
e. Subordinate commanders should be ready to take control of assets operating in the AO's.

6. "HEARABILITY/LINE-OF-SIGHT"
a. EW assets must go where they have to go "to get the job done." Their actions must support the scheme of maneuver and fire plans. Key terrain which they, as well as other members of the combined arms team require, will be limited. This principle indicates:
(1) An EW team concept of employment;
(2) close coordination with the maneuver elements of battalion task forces (BTF);
(3) And, combined arms training.
b. It should be noted that an "EW team concept" not only supports all of the other principles of EW support, but also reinforces the coordination/interaction requirements of intercept/DF and COMJAM assets.

The "Principles of EW Support," which resulted from these efforts, provided the basis for developing, presenting, and distributing detailed "EW Operations" briefings at major user conferences and seminars in the first half of 1981. These materials, which get down to the nitty-gritty in EW planning, tasking, reporting, execution, and training, are now in the hands of most FORSCOM corps and division commanders, who are directing their incorporation into unit training programs.

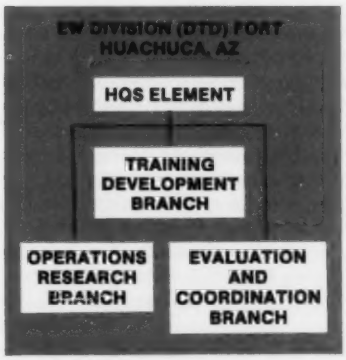
OFFENSIVE EW TRAINING MATERIALS

In January 1982, USAICS distributed offensive EW blocks-of-instruction, which constitute the second academic week of the exportable EW Staff Officer Course. These materials provide the foundation from which all other EW training requirements will be improved.



EW DIVISION

In June 1981, the Commander, USAICS, Brigadier General James A. Teal, Jr., received a series of briefings on major EW proponency and MI (CEWI) unit fielding issues. He immediately realized that these issues, together with the tremendous workload already confronting the EW Office, demanded even more extraordinary action. Therefore, on 15 July 1981, a EW Division (Provisional) was established within the Directorate of Training Developments to function as the focal point within the command for all EW concepts, doctrine, training development, training, and evaluation activities.



EW Division personnel requirements, 56 personnel, represent a ten-fold increase in USAICS EW training development efforts. The division's organizational structure was designed with two purposes in mind:
(1) Specialization in related developmental fields (i.e., research, analysis, evaluation, and coordination).
(2) Contractor support in our production effort (i.e., training development).

The latter point is extremely significant when one acknowledges how difficult it is for the Army personnel management

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a. SOP/preplanned targets should be available for all EW teams.
b. Leap-frogging resources should be planned.
c. Back-up coverage of high priority targets for intercept/DF and COMJAM should be standard policy.
d. EW training should be based on worst case situations; and . . .
e. Subordinate commanders should be ready to take control of assets operating in the AO's.

6. "HEARABILITY/LINE-OF-SIGHT"
a. EW assets must go where they have to go "to get the job done." Their actions must support the scheme of maneuver and fire plans. Key terrain which they, as well as other members of the combined arms team require, will be limited. This principle indicates:
(1) An EW team concept of employment;
(2) close coordination with the maneuver elements of battalion task forces (BTF);
(3) And, combined arms training.
b. It should be noted that an "EW team concept" not only supports all of the other principles of EW support, but also reinforces the coordination/interaction requirements of intercept/DF and COMJAM assets.

The "Principles of EW Support," which resulted from these efforts, provided the basis for developing, presenting, and distributing detailed "EW Operations" briefings at major user conferences and seminars in the first half of 1981. These materials, which get down to the nitty-gritty in EW planning, tasking, reporting, execution, and training, are now in the hands of most FORSCOM corps and division commanders, who are directing their incorporation into unit training programs.

OFFENSIVE EW TRAINING MATERIALS

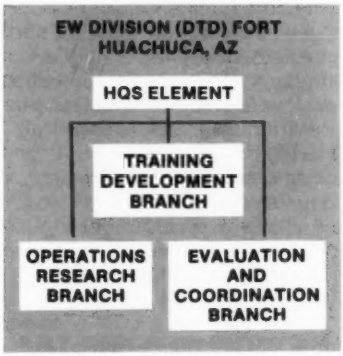
In January 1982, USAICS distributed offensive EW blocks-of-instruction, which constitute the second academic week of the exportable EW Staff Officer Course. These materials provide the foundation from which all other EW training requirements will be improved.

EW STAFF OFFICIAL COURSE (ASI 5M) SECOND ACADEMIC WEEK

Monday	OFFENSIVE EW
	ELECTRONIC COMBAT
Tuesday	COMBAT UNITS AND EW UNITS
	EW EQUIPMENT
Wednesday	ORGANIZATION AND EMPLOYMENT FOR ELECTRONIC COMBAT
	EW OPERATIONS
	EW TRAINING
Thursday	EW PRACTICAL EXERCISE
Friday	EXAM
	CRITIQUE

EW DIVISION

In June 1981, the Commander, USAICS, Brigadier General James A. Teal, Jr., received a series of briefings on major EW proponency and MI (CEWI) unit fielding issues. He immediately realized that these issues, together with the tremendous workload already confronting the EW Office, demanded even more extraordinary action. Therefore, on 15 July 1981, a EW Division (Provisional) was established within the Directorate of Training Developments to function as the focal point within the command for all EW concepts, doctrine, training development, training, and evaluation activities.



EW Division personnel requirements, 56 personnel, represent a ten-fold increase in USAICS EW training development efforts. The division's organizational structure was designed with two purposes in mind:
(1) Specialization in related developmental fields (i.e., research, analysis, evaluation, and coordination).
(2) Contractor support in our production effort (i.e., training development).

The latter point is extremely significant when one acknowledges how difficult it is for the Army personnel management

system to fill all required and authorized vacancies. We anticipate concentrating military and government civilian personnel within our operations research and evaluation and coordination branches; contract support could fill the void in the actual development and production of EW training materials . . . information being provided from the other two branches.

The most significant aspect of the EW Division is the proliferation of combat arms officers (projected) within the Training Development and Evaluation and Coordination Branches. These personnel are deemed essential to the integration of EW with all other elements of combat power (e.g., maneuvers and fires).

An equally significant aspect of the EW Division is the realization that the Evaluation and Coordination Branch, which ultimately will have three combat arms teams on-the-road to all U.S. Army corps and divisions, represents the "hub" of all of our activities. A two-way dialogue with tactical field units, combat developers and doctrinal literature writers will ensure that the time-lag between concept, doctrine, training, practice and evaluation will be reduced. Actually, our goal is to get combined arms warfare tactics driving EW R&D efforts, rather than the other way around.

AN EW CENTER FOR THE U.S. ARMY

The magnitude of the EW Division's charter, which spans all functional areas of EW responsibilities—concept, doctrine, materiel, training development, training and evaluation—has indicated the need to raise it to directorate level status within USAICS. This is being considered at the present time.

Also, in realizing the enormous task at hand and ackowledging where EW is going in the future, just possibly, there is a need to establish an EW Center within the U.S. Army. This topic has been discussed with senior MI officers within the TRADOC community and has received a very positive response. They realize, as we all do, that USAICS is an "intelligence" center and school and Fort Devens, a subordinate USAICS command is an "intelligence" school; neither are EW centers. An effective interim measure may be to rename USAICS. Doesn't the U.S. Army Intelligence and Electronic Warfare Center and Schools sound good? Should the school at Fort Devens be named the U.S. Army Electronic Warfare School, or even EW Center and School? Couldn't Fort Devens train Army EW personnel to meet Army requirements and NSA train Army personnel to meet national intelligence (SIGINT) requirements? Are Army EW requirements being satisfied at present under the Cryptologic Training Program and the Executive Agent System.

The Intelligence Center and School is currently exploring these issues and evaluating its training methodology, "SIGINT" and EW POI's, etc. Necessary action will be taken to ensure the tactical Army's operational requirements are satisfied.

A quotation from the former commander of USAICS, seems appropriate in closing, for it is actually applicable to all members of the EW community—government, military, industry and education:

"Through our collective efforts today's EW problems can be solved. The emphasis is on today. EW doctrine must reflect today's situation and we must strive collectively to resolve today's problems. Our transition to Division 86 must be evolutionary—built upon experience and proven convictions; not revolutionary—sacrificing today's readiness for tomorrow's promises."

The new commander of USAICS, Brig. Gen. Richard W. Wilmot is continuing to place command emphasis on EW, stating "the impetus is on ELECTRONIC COMBAT readiness, today." We are all involved. Let's get "crackin!"

SPECIALTY PROPONENCY ADVOCATE

In the past there has been very little MI Branch involvement in the process by which officer civilian academic disciplines are identified as being necessary to sustain the MI mission. However, in late 1981, specialty proponency offices at USAICS and USAISD reviewed all the civilian academic disciplines listed in AR 145-1 and compared them to worldwide listings of specialty codes (SC) 35, 36, and 37. Specific emphasis was placed on comparing MI SC's with "hard skill" civilian disciplines (the physical sciences, engineering, and mathematics) and recommending an appropriate alphabetical code after the listed SC. The process enhances MI Branch involvement by insuring a yearly review of this very important aspect of career management. In addition, the recommendations will be used as the basis for determining what additional civilian education is necessary for military intelligence now and in the future.

Notice to subscribers:

Military Intelligence Magazine has received numerous letters and queries on a number of matters concerning subscriptions.

First, it should be explained that the Oct-Dec issue was late. Longtime readers may notice that an almost complete turnover in the staff has occurred during the last quarter. This caused a pile-up in our subscription department which resulted in the late return of many subscription checks. We regret any inconvenience to our

subscribers and we hope that this will not happen again.

A few subscribers have complained that magazines have not arrived on time or at all. Again, some issues have been late. As far as no-shows are concerned, several reasons can be found. Our mailing labels are printed by computer and mistakes do occur. Magazines are misdirected or are picked up by someone else before reaching their intended destination.

Many subscribers have mentioned that their subscriptions have expired without any notice. We try to mark final issues with a reminder, but some slip by. All paid subscriptions have the subscription expiration date marked at the bottom of the mailing label.

Changes of address should always be accompanied by the old address label. It is next to impossible for us to process a change of address without the 12-digit code printed at the top of the mailing label.

Another point which may need some clearing up is our policy concerning billing. We do not start any subscription until we have received full payment. Requests for billing or subscription information are answered with an invoice, but the address is not added to our list until payment is made.

Finally, we get many requests for back issues. We keep a limited quantity of back issues in our offices. We do keep the required file of back issues but generally have no back issues for sale or give-away. We do have a few extra copies of certain back issues on hand which we distribute on a first come, first serve basis, primarily to libraries that file our magazine.

The staff of MI Magazine hopes that this notice will answer most subscriber questions. Any questions or comments should be directed to MI Magazine, P.O. Box 569, Fort Huachuca, AZ 85613.

SP5 Bob Kerr
Subscription manager

OFFICER NOTES

First lieutenant photos

AR 640-30 requires that upon promotion to first lieutenant, all officers must have their official photograph taken. This should be done within sixty days of promotion with two copies of the photograph forwarded to MILPERCEN (ATTN: DAPC-POR) 200 Stovall Street, Alexandria, VA 22332.

MI info service

During the month of February 1982, MI Branch OPMD is scheduled to begin providing information on available assignments, professional development and other pertinent items during non-duty hours. A recording containing this information can be contacted by dialing AUTOVON 221-7433 or Commercial (202) 325-7433 between 6 p.m. and 7 a.m. Mon-Fri and on weekends/holidays.

Civil schooling update

Military Intelligence officers who do not possess a baccalaureate degree should exert effort to obtain their degree. Chapter 6, AR 621-1, provides information on the two programs which are available to assist in completing degrees. They are the Degree Completion and Permissive TDY. DCP provides up to 12 months (18 months in exceptional cases) of civil schooling with the emphasis on completing a degree in the least possible time. Permissive TDY is a "no cost to the government" program for up to 19 weeks and six days. Permissive TDY can take place enroute to a new duty assignment, and can be done at the old or new location. It is recognized that many officers in the field have been working on their own time toward completing their baccalaureate degree. When selecting a program of study, remember that the Army is more likely to assist officers who take courses that support their OPMS specialties. A degree that supports your specialties enhances your professional development. Additionally, you are encouraged to use your preference statement remarks section to keep your career managers up to date on your progress toward successful degree completion.

Fully-Funded Advanced Civil Schooling is a very competitive program the Army has for graduate work. Consistently outstanding manner of performance, Initial Specialty Qualification, and demonstrated potential are essential factors which make a person eligible for fully-funded graduate work.

Study must be in a shortage discipline and support an OPMS specialty. There are four types of graduate programs: Fully-Funded, Partially-Funded, Permissive TDY and Advanced Degree Program for ROTC Instructor Duty, AR 621-101.

The Fully-Funded program (Chap 3, AR 621-1) is limited by quotas available each fiscal year. To date, MI Branch has filled most of its FY 82 quotas, but several excellent opportunities are still available. Graduate Partially-Funded DCP and Permissive TDY for graduate degrees go by essentially the same rules as with baccalaureate pursuits. To be eligible, the request for schooling must be in a shortage discipline, support OPMS, and you must be competitive.

ADPRID provides up to 15 months graduate schooling in a shortage discipline with a follow on three year assignment at the university ROTC unit. ROTC duty is nominative; therefore, advance coordination with the assignment officer is necessary to confirm a vacancy at the desired school. After a vacancy is confirmed, the applying officer should gain admittance to the graduate school. The final step is for the assignment officer to

nominate the officer through the ROTC Region for acceptance at the university ROTC unit.

When it arrives at MI Branch a screening process is conducted to determine eligibility, i.e., the officer must have less than 14 years active federal service, time in school must not exceed AR 621-1 standards, and manner of performance must justify attendance. Applications and records are then reviewed by a Civil Schools Board in Combat Support Arms Division for final approval.

Those considering Civil Schooling should start planning now since stability and availability are also important factors. Officers in CONUS are recommended by MILPERCEN to send applications no later than six to nine months in advance of PCS availability. For overseas returnees, MILPERCEN should have your application at least nine to 12 months in advance of DEROS.

The following is a list of shortage disciplines available for MI Officers:

CODE	ACADEMIC DISCIPLINE
EBX	Area Studies
CUC	Operations Research & Systems Analyst (ENGR)
BAP	Organization Behavior (PERS MGT)
BAM	Comptrollership
AKX	Journalism, Writing & Editing
CHA	Engineering Electronics
CHJ	Joint Command, Control, Comm (C^3)
BAO	Organization Behavior (OE)
BAN	ADPS-Business
CHF	Electronic Warfare Systems Technology
CUA	ADPS-Engineering
DEX	Geodetic Science

As stated earlier, some excellent FY 82 quotas are still available. Disciplines, quotas, and school start dates still open are:

Area Studies: July 82, at the Naval Postgraduate School (5 quotas)

Comptrollership: June 82, at Syracuse University (1 quota)

Organizational Behavior (Pers Mgt): July 82, at the Naval Postgraduate School (2 quotas)

Area Studies are available for all qualified and eligible MI officers possessing or expected to receive the additional specialty of Foreign Area Officer (FAO) SC 48. Comptrollership is for additional specialty 45 and OB/PERS MGT is for additional specialty 41. Civil education programs remain available and present many options. Contact the MI Branch Professional Development Officer, CPT(P) Dan T. Morris, AUTOVON 221-0143 for more information.

ENLISTED NOTES

Force alignment initiative16

MI Branch is currently addressing a serious professional development/management problem for those soldiers awarded MOS 97B, grade E8, and MOS 17K, grade E7. MOS 97B, grade E8, is currently operating at 138 percent of authorized strength and MOS 17K, grade E7, is operating at 139 percent of authorized strength. Projections forecast an even greater overstrength by mid-1982, upwards to 146 percent, MOS 97B, and 175 percent, MOS 17K. This situation severely impacts on promotion opportunity, professional development, and job satisfaction.

In an attempt to alleviate this overstrength situation, the Career Management Information Files (CMIF) of all E8's, MOS 97B, and E7's, MOS 17K, are being screened to determine eligibility for possible reclassification consideration to another shortage MOS within Career Management Field (CMF) 96. This review consists of previous duty assignments, military schooling, and Senior Enlisted Efficiency Reports, and individual desires.

Rather than initiating any type of "DA directed" reclassification action to cross-level existing shortages, voluntary reclassification is being offered to those personnel who are qualified. First consideration is being offered those soldiers awarded a SMOS within CMF 96 who require no additional training (i.e., SMOS 96B, 97C). Further initiatives will seek volunteers for retraining into MOS 96B, currently operating at 67 percent of authorized strength at grade E7. Those soldiers who are qualified are currently being sent letters requesting "serious consideration" for voluntary reclassification to a shortage MOS. Individuals who are currently in an overstrength MOS, as defined by DA Circular 611-81-4, who desire reclassification to a shortage MOS, are encouraged to do so by submitting the request on DA Form 4187, through command channels to USAMILPERCEN (DAPC-EPL-M), 2461 Eisenhower Avenue, Alexandria, VA 22331.

Foreign service extensions

AR 614-30 encourages oversea tour extensions, and MI Branch supports this policy in principle and action. Procedures for voluntary extensions of overseas tours and approval authority are indicated in Table 7-1, AR 614-30. This headquarters will approve all requests provided the following provisions are met:

- ☐ Individual must be serving in PMOS in current or higher grade.
- ☐ Commander must recommend approval.
- ☐ Unit cannot be overstrength in grade and PMOS.
- ☐ Request must be received prior to issuance of reassignment instructions by this headquarters. Orders are normally issued approximately 4 to 6

months prior to DEROS.

It is recommended that foreign service tour extensions be submitted as early as possible to ensure that the request arrives before assignment instructions are issued by USAMILPERCEN.

Volunteers for Korea

MI Branch is seeking volunteer requests for assignment to Korea for personnel with MOS 17K, 96B, 96C, 96D, 96H, 97B, and 97C. Soldiers interested in applying should submit DA Form 4187 (Personnel Action Request) in accordance with procedure 3-14, DA Pam 600-8. Additional information may be obtained in Chapter 2, AR 614-30, 1 November 1980. Those desiring an intertheater transfer to Korea must submit DA Form 2635 (Enlisted Preference Statement) at least 10 months prior to DEROS if currently serving in a long tour area; five months if serving in a short tour area. Once the request is received at Branch, notification of receipt will be made by USAMILPERCEN utilizing DA Form 209. As soon as a valid requirement for a particular grade and MOS is received, assignment instructions will be issued.

CONUS to CONUS moves

CONUS to CONUS moves are prohibited except for operational or compassionate reasons based on budgetary constraints. Please pass the word.

Instructor personnel needed

Personnel with MOS 96B, 96D, and 97B, grades E6 or E7, are needed at Fort Huachuca as instructors. If you are currently serving overseas and are within one year of DEROS, you may volunteer for instructor duty. You must, however, meet the prerequisites of paragraph 8-26, AR 614-200:

- ☐ Be serving in grade E6 or above.
- ☐ Served at least three years on active duty.
- ☐ Have at least two years remaining upon assignment to Fort Huachuca.
- ☐ Have at least a SECRET security clearance.
- ☐ Have no speech impediment.
- ☐ Have at least one year's experience in PMOS.

If interested, submit an application in accordance with procedure 3-40, DA Pam 600-8, through channels to DA MILPERCEN, ATTN: DAPC-EPL-M, Alexandria, VA 22331.

Bad data

MILPERCEN cannot overemphasize the importance of reviewing the DA Form 2 to ensure all information is current and accurate. Bad data not only impacts on the individual soldier, but also on personnel management in commands throughout the world. From the August 1981 Personnel Research Information Data Extract, the following data errors were discovered:

6,230 soldiers with terms of service incompatible with ETS,
232 soldiers with invalid ETS dates,
1,408 ETS dates were past due over one month,
27 soldiers had invalid grades,
3,067 past due DEROS,
9,362 had blank invalid DEROS,
21,801 had assignment availability codes (AEA) either blank or invalid,
5,452 had a blank or invalid PMOS.

It takes no wizard to figure out how the data errors impact upon distribution, assignment, deletion, deferments, and the individual soldier.

MI Branch receives several calls from soldiers stating the data concerning him/her is in error. Sometimes, MI Branch may be able to verify the error and even correct it; however, if the soldier, in coordination with the local MILPO, does not submit a SIDPERS transaction, the corrected data may be erased during the next update process. The best way to insure permanent changes are made is through a SIDPERS transaction at the lowest level. Accordingly, during your next review of DA Form 2, ensure all items are current, accurate, and that the MILPO has made the necessary SIDPERS transaction(s).

THE BALLAD OF THE MI SOLDIER

Fighting Soldiers of MI . . .
Air-conditioned or we'll cry
Radio to spread the news,
Ice-cold beer to chase the blues.

A grease pencil is our mighty sword,
With this we'll fight, O thank the lord;
No M-16's within our ranks
No handgrenades, no noisy tanks.

MI men at fighting peak,
Six hours a day, four days a week,
Cocktail parties on Saturday,
You can keep your green beret.

Back at home a young wife waits,
Her MI man has met his fate;
In the field he was too bold,
Fell to victim to a bad chest cold.

No silver wings upon his chest,
He may not be America's best;
But see him now at sixty-five,
Maybe drunk but still alive.

—Anonymous

Sung to the tune of "The Green Berets"

Editor's note: This ditty appeared in our office recently. Although it may not apply to all our readers, many may get a chuckle out of it. If you have a joke, amusing anecdote or original cartoon you'd like to share with the MI community, drop it in the mail to ***Military Intelligence.***

FAILSAFE MISSION

by Terry D. Bearce

Playing the role of residents of a fictitious town in Calif., actors scramble past the burning wreckage of an Army CH-47 Chinook helicopter. Defense Nuclear Agency photo

Intelligence security support to the joint Department of Defense/ Department of Energy Nuclear Weapons Accident Exercise (NUWAX) 1981

OPREP 3 PINNACLE/ BROKEN ARROW

1. 21 April 81, Location at Wahmonie, California.
2. Number and extent of injuries and property damage unknown.

Injuries are unknown.

3. U.S. Army helicopter logistic movement.
4. Cause was midair collision with private aircraft.
5. CH-47 crashed and burned after midair collision with a small private aircraft.
6. California highway patrol has responded to accident site.
7. March AFB is nearest military installation to Wahmonie, California. Recommend March AFB respond with initial response force.

A massive effort, involving the Department of Defense, the Department of Energy, the Federal Emergency Management Agency, and the State of California is galvanized into action by a BROKEN ARROW voice and message report.

The crash site is a rural area, near the small town of Wahmonie, California. Three-quarters of an hour after the accident a California Highway Patrol (CHP) arrives on scene—the first official to arrive with radiological monitoring equipment. Within minutes of arrival,

CHP requested assistance from the California Department of Transportation and the nearest military activity.

The crash caused the high explosives in the weapons to detonate spreading radioactivity over part of the town. All crewmen aboard the helicopter and the civilian aircraft are dead. There are civilian casualties from the explosion. The extent of radioactive contamination is unknown.

Fortunately, all this really did not occur, except as part of the joint Department of Defense and Department of Energy Nuclear Weapons Accident Exercise (NUWAX) 1981. Before the exercise terminated 5 days later, over 1,000 military and civilian personnel, representing the Departments of Defense and Energy; the Federal Emergency Management Agency, the California Office of Emergency Services, and other national and state agencies relocated to the Nevada Test Site, sixty miles north of Las Vegas, Nevada, participated in this realistic nuclear accident exercise.

The 902d Military Intelligence Group Counterintelligence Detachment, Defense Nuclear Agency (902d MI GP CI Det-DNA) was also there, providing on-the-scene, realtime intelligence security support to the control staff and the reaction force elements. The detachment's arrival and on-scene support culminated over a year's active involvement in the planning, development and execution of NUWAX-81.

Although the exercise was basically unclassified, it involved active participation by civilian agencies; visits by foreign observers; and an active public affairs program, to include press days and coverage by local, national and international news media. There were classified weapon components dispersed in the vicinity of the accident scene, conventional high explosive problems to be overcome, and actual radiological contamination of the accident area. The planning was comprehensive, the coordination was extensive, the Operations Security potential was huge.

The intelligence security support provided by the 902d MI GP CI Det-DNA was all encompassing—and included OPEC awareness programs from the early planning stages throughout the exercise; threat data development and presentation; research and preparation of an intelligence annex and a counterintelligence appendix to the NUWAX-81 Operations Plan;

Radiation workers prepare to dispense radioactive radium (Radium 223) and mercury (Hg-197) at the simulated accident site used in NUWAX-81. Defense Nuclear Agency photo

"Residents" of the fictitious Calif. town of Wahmonie inspect the remains of a light, civilian aircraft involved in a simulated aerial collision with an Army helicopter. Defense Nuclear Agency photo

coordination and control of U.S. Army National Guard aerial surveillance assets; coordination of national level surveillance assets; development of scenario scripting for the counterintelligence play; actor support for the conduct of the exercise; and realworld, on-site counterintelligence support to both the control staff and the players.

The detachment's NUWAX involvement began in early 1980, when as part of their dedicated intelligence security support to the Defense Nuclear Agency, detachment representatives attended planning meetings for the embryonic NUWAX-81. During these meetings, the foundations for the OPSEC program were laid. As the planning and coordination became more intensive in late 1980, active participation by the detachment increased. Early in 1981, the CI Det-DNA support was officially promulgated in a letter from ADM Shaffer, DNA's Deputy Director.

The support efforts were multidimensional and included pre-exercise actions as well as on-scene exercise support as mentioned above. Within each dimension, the detachment provided actual counterintelligence and intelligence security support to planners and provided similar support to the reaction force players. In order to maintain the high degree of realism desired in NUWAX-81, the detachment player support was conducted within a specified scenario that set the accident site in California, while the exercise was actually conducted in Nevada. Detachment representatives also supported planning and exercise activity in Washington, D.C., in New Mexico, where the detailed planning was conducted; and in Nevada at the exercise site.

The CI Det-DNA scored several firsts during support activities for NUWAX-81. The detachment coordinated the first ever Counterimagery Intelligence (IMINT) effort in a nuclear weapons accident exercise, to include the use of OV-1 Mohawk aircraft from the Oregon Army National Guard, as well as national level IMINT support. This has made NUWAX-81 the first nuclear weapons accident exercise that used reserve component military intelligence assets.

The development of a counterintelligence appendix addressing a multidisciplined threat and countermeasures study and recommendations to a nuclear weapons accident exercise was also a first. Detachment members supported the exercise, representing not only INSCOM, but portraying other national and local level intelligence and security agencies for the accident reaction forces.

Additional support consisted of daily multidisciplined threat updates; security briefings; technical surveillance countermeasures; physical, document and personnel security support

A radiation worker sprays radioactive contaminant (Radium 223) over airplane wreckage near the fictitious town of Wahmonie.
Defense Nuclear Agency photo

to the Chief of the Joint Task Group Security Branch; and support to the overall OPSEC program for the exercise. Extensive liaison was conducted with local, state, and federal law enforcement and security officials and national intelligence security agencies to provide timely and continuously updated threat information for real-world threat presentations to both the Joint Task Group conducting the exercise and the Service Response Force being exercised.

Since the development of nuclear weapons by the U.S. there has never been an unplanned or inadvertent detonation of a weapon which resulted in a nuclear yield. However, there have been a number of accidents over the years which involved substantial damage to nuclear weapons and in some cases, resulted in detonation of conventional high explosive components. The most recent accident involving damage to a warhead was the missile accident at Damascus, Arkansas in September 1980. Although the warhead underwent rather severe shock and stress as a result of the missile explosion, the high explosive material did not detonate. There was no radiological contamination problem, which greatly simplified the accident recovery operations. Two recent accidents which involved conventional high explosive detonations and posed significant radiological clean up problems occurred in Palomares, Spain in 1966 and in Thule, Greenland in 1968.

In order to handle such accidents, all military services and the Department of Energy maintain response forces which are capable of dealing with various aspects of a nuclear mishap. As an outgrowth of our experience from NUWAX-81, the CI Det-DNA is now part of a Defense Nuclear Agency Weapons Accident Response Team, capable of fielding teams worldwide to assist in the management of a nuclear weapons accident. The detachment mission, as part of this team's function, is to provide intelligence, counterintelligence, and OPSEC support to an on-scene commander, and to conduct liaison with national, state, and local agencies to detect and neutralize threats to a recovery operation.

The 902d MI GP CI Det-DNA continues its dedicated intelligence and security support to the Defense Nuclear Agency through its offices co-located with DNA elements in Washington, D.C. area; at Kirtland Air Base, NM; and at the Nevada Test Site, Mercury, Nevada. Our support to future nuclear weapons accident exercises will continue to expand as we complete our preparations to assist, on a worldwide basis, our nation's recovery from any nuclear weapons accident.

FEEDBACK

Editor:

Captain Grimm in his "The 35A Dilemma: Tactical Proficiency" surfaced a serious problem among company grade 35A's, and did a good job of it. It's my opinion that a majority of young tactical intelligence officers share his views and yearn for increased professional acceptance.

The measures recommended by Captain Grimm were sound, but there are others to consider, such as:

1. Company grade 35's at battalion and brigade level don't deal with "tactical intelligence," they deal with combat intelligence. Call it like it is and exclude women.
2. Require combat intelligence officers to lead combat platoons, reconnaissance or not, prior to staff duty.
3. If the intelligence staff officer at battalion level must work for a major, let it be the operations officer, not the exec. Get operations and intelligence directly under the commander and we might get to where we need to be in intelligence training and not wasting time as the battalion recreation and historical officer.

Dean A. Greenwood, Jr.
MAJ, INF

Editor:

I would like to comment on the article "NATO Interoperability at the Tactical Unit Level" that appeared in the July-September 1981 issue of MI Magazine.

I take exception to Cpt. Menard's description of the U.S. Army Staff System (Inset, page 20). The staff series in the inset is the one used at battalion thru brigade level (also there is an S-5 civil affairs/PSYOP staff section located at these same echelons) the **S-series** staff is located at these echelons only. At division through corps levels, we find the **General Staff,** G-1 thru G-5 at Army level and higher we find the staff system organized as Deputy Chief of Staff for Personnel, Intelligence, and so forth. At the national level is the **Joint Staff** comprising representation for our Army, Air Force, Navy and Marine Corps. Although the article was not about staff systems, principally, I did feel it was not accurate and detracted from the more substantive import of Cpt. Menard's article.

Figure 2 depicts the broad deployment of NORTHAG and CENTAG and subordinate corps within each, however, I feel that Figure 2 should depict map locations such as Brunssum, the Netherlands and Brussels, Belgium, to provide a complete picture and fully support Figure 3. Figure 2 indicates an Army boundary instead of an Army Group boundary, Army Group=XXXXX, Army=XXXX. (Separating CENTAG from NORTHAG, he doesn't show either Army Group, so he must assume his audience knows the difference.)

Michael S. Evancevich
U.S. Army Retired

coming in next issue:

TACTICAL INTELLIGENCE

A Critical Look at OPSEC-REFORGER '81 by CWO3 D. Mann

The S-2's Role in the Airborne Antiarmor Defense by Capt. G. Wolfe

"Hey Duece, What Does This Mean?" by Maj. D. Johnston

The theme of the July-September 1982 issue will be Intelligence Training. Articles will include, but are not limited to, intelligence personnel and unit training, maneuver unit training, and resident/nonresident training. Any intelligence training article will be considered if it arrives before June 15, 1982. Articles on other topics are welcome and will be considered at any time.

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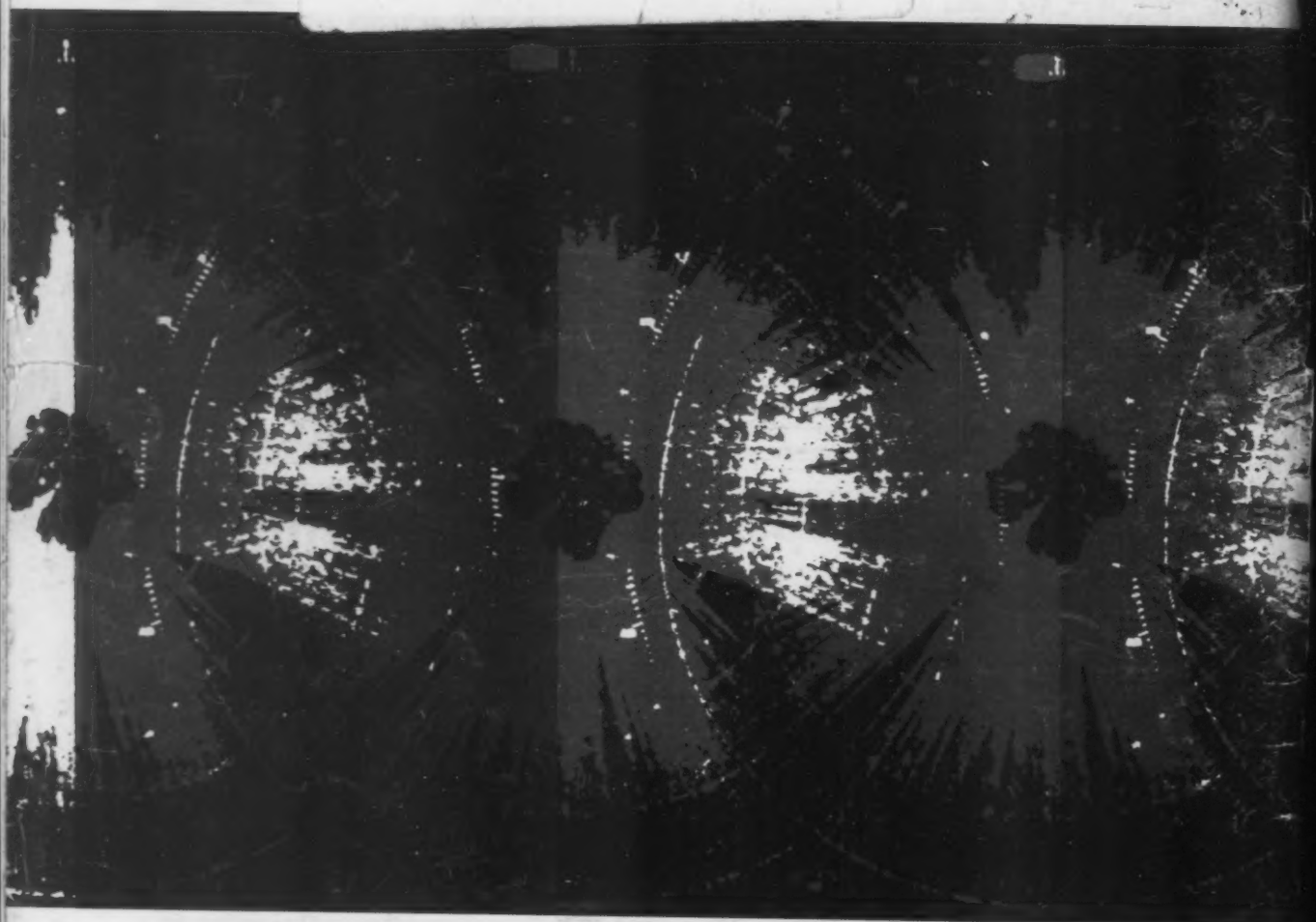

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